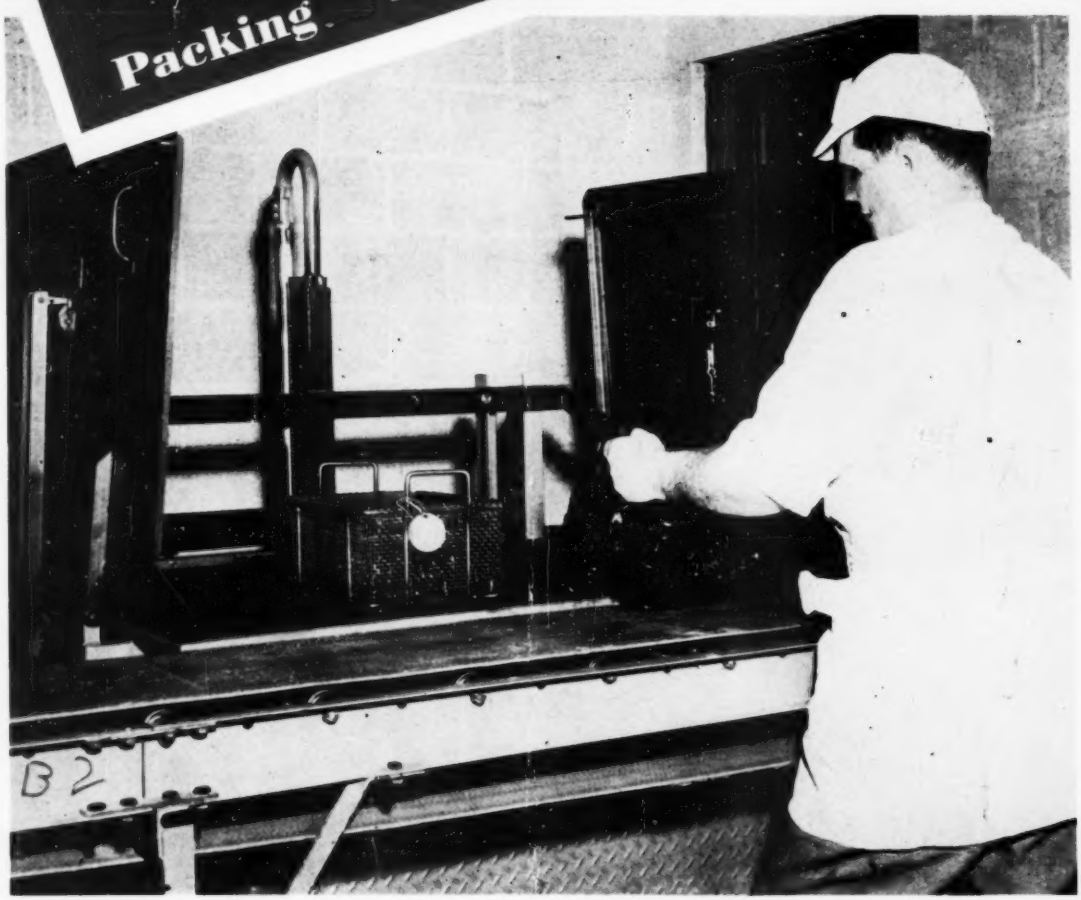
Shipping MANAGEMENT

Packing Transport Handling



Operator using an automatic dipping and agitating tank for processing and packaging bearings to government specifications. See story page 9.

JANUARY 1953

NOW! FASTER ... STRONGER Carton Packaging

With the new

DERBY *Sealer*

MODEL 32-T

Gummed TAPE DISPENSER

Especially Designed For

Tough Filament Carton Tapes

TAPE-STRAP*
GLASKRAFT*
FIBREEN*
SNAKE TAPE*
GLASPUN*
SEAL STRAP*

DERBY SEALER FEATURES THAT MAKE THE MODEL 32-T THE FINEST MACHINE OF ITS KIND!

- Heavy duty, extra sharp cut-off blade
- One-piece solid castings for extra rigidity
- Easy pull handle to reduce operator fatigue
- Delivers from 4 to 34 inches at one stroke
- Auxiliary Water Reservoir
- Accommodates any tape from 1" to 3" wide

The Model 32-T takes tough carton tapes in its stride! Equipped with an *extra sharp, heavy duty, tool steel cut-off blade*, this fine machine dispenses such tough, rugged tapes as "Tape-Strap," "Glaskraft" and "Snake Tape" as efficiently as it does the lighter tapes, making less work for the operator and actually stepping-up production time on carton packaging! And here's another important, carton-packaging feature! Fibrous carton tapes are put on without pressure — need only proper moistening to hold. The Model 32-T, by means of an auxiliary reservoir, maintains a high water level in the tank, reducing Capillary Lag and assuring constant moisture at the top of the brush, even when tape is dispensed at great speeds. It's the ideal dispenser for carton packaging, and it sells at such a low, low price!

*These are trade names used by various manufacturers to describe their filament imbedded tapes.

DERBY SEALERS, INC.

Designers and Builders of Derby Sealers and Grip-A-Tab Pressure Sensitive Tape Dispensers

DERBY, CONNECTICUT

Orange Core

outperforms all other standard tapes

Orange Core is faster acting and stronger than you ever dreamed possible in a standard gummed tape!

Thanks to an exclusive Hudson process called *Supple-izing**, the Orange Core adhesive has a phenomenal performance. A multitude of tiny cracks in the adhesive drink up water, so that Orange Core is ready to take hold of cartons with a bulldog grip the very instant you pull it from the dispenser. There is no excessive curl to fight.

What's more, every step in Orange Core's manufacture is controlled by one management. There are no irksome variations in performance. Your shipping dollar will go further with Orange Core. Try this superb standard tape for a month and see the improvement for yourself!

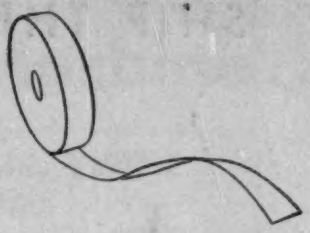
** Copyright*

ORANGE CORE
CONSISTENTLY SUPERIOR

The world's largest selling gummed tape

HUDSON PULP & PAPER CORP.
Dept. 36, 505 Park Ave., New York 22, N.Y.

Did you know?



Only gummed tape gives such protection against pilferage

Only by using gummed tape can you seal cartons *with your company name imprinted on the seal.* Petty thieves cannot pilfer without being detected, for they are unable to replace your exclusive tape. The tape warns your consignee not to accept the carton if its seal is broken. You don't risk blame for careless count when your shipment has actually been pilfered.

Gummed tape gives your merchandise better protection in transit, too. It seals out smoke, dust, moisture, and vermin. It adds reinforcement to your cartons where most needed: at corners and seams. Because tape is a flexible closure, it helps your cartons better to withstand shock.

You build good will when you deliver goods protected against pilferage and damage claims with *gummed tape!*

Remember, too, only gummed tape sells as it safeguards your product, by displaying your imprinted messages.

Send for this helpful folder—TODAY!

"HOW TO MAKE YOUR SHIPPING DOLLARS GO FURTHER"

HUDSON PULP & PAPER CORP.
Dept. 36, 505 Park Ave., New York 22, N.Y.

I want my free copy of your informative folder,
"How to make your shipping dollars go further"

NAME_____

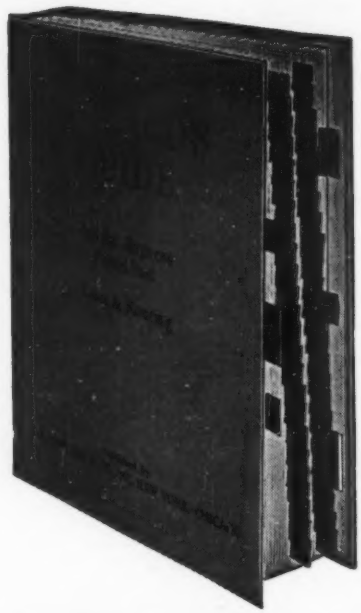
COMPANY_____

STREET ADDRESS_____

CITY_____ ZONE____ STATE_____

SHIP THE *Easy Way* EVERY DAY

WITH THE BETTER



MORE ACCURATE

LEONARD'S GUIDE

Speed your shipments with LEONARD'S GUIDE.

Indexed and easy to use with quick reference for PARCEL POST, EXPRESS, FREIGHT, Rates, Routing and much other shipping information.

More than forty years' experience of careful compilation by our staff of experts makes it an outstanding "Shippers' Cyclopedia."

Over twenty thousand satisfied subscribers use it daily. Its largest circulation in the shipping guide field is verified by the Audit Bureau of Circulations. Convince yourself by ordering your LEONARD'S GUIDE now.

Write or phone

G. R. LEONARD & CO.

81 Madison Avenue, New York 16

121 North Wacker Drive, Chicago 6

ANNOUNCING A NEW

Gerrard Tying Machine...

FULLY AUTOMATIC B.S.M. TWINE SEALING MACHINE

• Here's a new, completely automatic tying machine that may fill a need in your plant . . . the Gerrard B.S.M. Twine Sealing Machine. Just place the bundle in the tying area, step on the pedal, and in three seconds, the twine is wrapped around the bundle, drawn to a pre-set tension, securely fastened with a *metal seal,* and cut. The bundle is firmly gripped and the tie will remain neat, strong and tight until the twine is cut. Several ties can be put around a bundle as quickly as it can be moved into position.

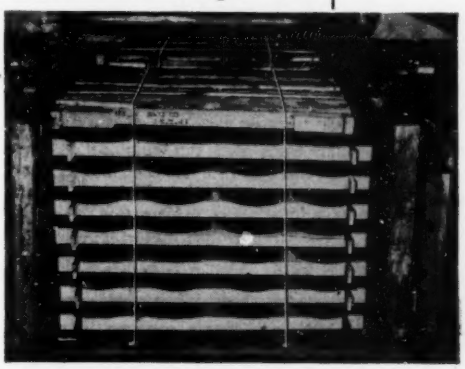
Look around your mailing or shipping department. There may be several spots where a Gerrard B.S.M. Twine Sealing Machine can save you time and money, and do a better tying job at the same time.

SEND FOR FOLDER DESCRIBING THE GERRARD TWINE SEALING MACHINE. IT'S FREE.

THE GERRARD B.S.M. TWINE SEALER IS completely automatic, makes a 1-cycle wrap, and secures the twine with a metal seal so firmly that the twine will break before the seal will slip. Bundles are limited to a 14" width and a 9" height.

On heavy tying jobs... be safe... save money... use Gerrard Steel Strapping

• Gerrard Round Steel Strapping, in 8 to 18½ gauge, was designed for safe, dependable, easy strapping of small packages, larger cartons and crates, heavy cases, pallets, and for reinforcement of carload lots of steel pipe, plates, sheets and machinery. With Gerrard's hand-operated machines, or the semi-automatic Model Q, you can make firm, tight closures or secure reinforcements that will keep your shipments safe from plant to destination. And Gerrard Round Steel Strapping costs about 40% less than any other metal reinforcement.



BRAKE DRUMS are palletized for inter-plant shipment, a good example of what can be done with small, odd-shaped units. 10 gauge Gerrard Round Steel Strapping holds the pallets securely.

ASK US FOR FULL INFORMATION

Phone, write or wire for further information about the Gerrard Method of Steel Strapping or of Twine Sealing. A Gerrard engineer will gladly call, without obligation, to discuss your packaging and bundling requirements. Also ask for a free copy of the Blue Book of Packaging.

GERRARD STEEL STRAPPING DIVISION, UNITED STATES STEEL CORPORATION
2909 West 47th St., Chicago 32, Ill.

U·S·S GERRARD STEEL STRAPPING

USS

UNITED STATES STEEL

FREE LITERATURE

Each numbered paragraph below describes practical, illustrated literature about the newest developments in shipping room supplies, devices and equipment . . . important data every alert, progressive shipping manager should keep filed and available for instant reference. It will pay you to read each item carefully, select those that help with your particular shipping problems. Then all you need to do is check and mail the coupon. Shipping Management will see that the material is forwarded with no obligation on your part.

CONTAINER TESTING . . . Quality control programs, material testing, plant surveys, research, consultation by these top testing labs. FREE brochure, "How Good Is Your Package"? Check 1.

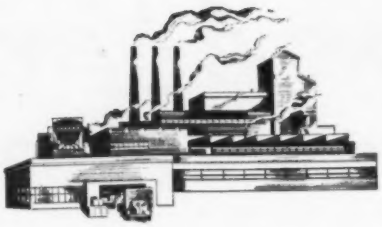
TAPE DISPENSER BULLETIN . . . Details about tape dispensers for every conceivable packing operation, with or without special attachments, in this bulletin. YOURS FREE if you check 2.

NEW POSTAGE RATES . . . available in handy chart form free by this stencil machine company. For your FREE copy, Check 3.

GUMMED TAPE . . . Everything you'll ever want to know about the types, sizes, uses and virtues of gummed tape, in FREE FOLDERS, BOOKLETS AND SAMPLES, check 4.

NO MESSY GLUE . . . pots and brushes with this solution to your label gluing problem. Low initial cost, no upkeep, trouble free. Used for applying glue to labels for cartons, bottles, cans. In three sizes. Ten day free trial. FREE info, check 5.

NEW WEIGHT LIMITS. . . . Do you know to what cities you can ship 20 pounds? 40 pounds? 70 pounds? This parcel post, express, freight guide, gives you all rates and routing information. Loose leaf in form, always up-to-the-minute. FREE details if you check 6.



FIBRE STRAPPPING . . . that is fully laminated. An important shipping development. Prime territories also available to distributors. FREE SAMPLES, just check number 7.

SHREDDING MACHINES . . . that improve packing quality, reduce costs, and best of all, pay for themselves in no time. Almost no upkeep, works quietly. FREE LITERATURE. Check 8.

ANSWERED: YOUR SHIPPING PROBLEMS . . . by the 1952 Better Shipping Manual. Latest, up-to-date information on every phase of the field, plus complete directory of every type of shipping, packing or shipping room product. FREE, 10 DAY EXAMINATION offer, check 9.

COMPLETE FOLDER . . . Yours FREE, covers light and heavy-duty sealing machines. tacky tape dispensers, gummed tape printers, label and envelope moisteners, attachments and accessories — for shipping room and factory. Check 10.

NEW POSTAGE RATES . . . in handy wall chart form, covers all classes of mail, and is complete with changes and parcel post map showing zones for any locality. FREE, check 11.

HUMIDITY INDICATORS . . . Our government contracts for millions of these humidity indicators is evidence enough of their value to you! Also dip tanks, Silica Gel, and other corrosion prevention products. FREE LITERATURE, check 12.

FAST TAGGING . . . of your shipments, and quick attachment of linings to shipping crates with this remarkable, fast working one-hand tacker. FREE BOOKLET with the whole story. Check 13.

CARTON GLUERS . . . These motor-driven machines glue carton flaps securely in quick time. Uniformly glued flaps insure safely sealed cartons. No glue-ooze at the edges. Uses any carton sealing glue. COMPLETE INFO FREE, no. 14.

COTTON TWINE . . . for every packing purpose. Best for parcel post, railway express, or air express. Any way you ship this quality cotton twine is the best available. Available in all sizes. FREE Details, check 15.

PACKING PADS . . . engineered to your needs. Results guaranteed. All lengths to 160 inches. Seven standard thickness. For address of nearest office, DETAILS FREE. Check 16.

FREE PINT SAMPLE . . . of a new-stencil ink that is really blacker, that needs no shaking that's weatherproof and permanent, that won't harden brushes. Enough for 1,000 addresses, it's yours FREE if you check 17.

SHIPPING A HEADACHE? . . . Then get this Shipping Guide, FREE to all our readers. It gives time and money saving hints for your shipping department. Just check 18.

PARCEL POST SCALE . . . Simply press the zone key. One figure shows the exact postage. Descriptive bulletins FREE, if you check 19.

FOLDING CARTONS . . . Smartly designed and brilliant multicolor folding cartons are solving packaging problems for many manufacturers. SAMPLES & TECHNICAL INFO. FREE, check 20.

WHILE YOUR TAPING . . . why not take advantage of the advertising and pilferage protection benefits of printed gummed tape? 12 reasons why it is superior, told FREE if you check 21.

PAPER SHREDDING . . . machine provides interior packaging material cheaply. Four ways to save space & money shown in FREE FOLDER. Check 22.

SAFETY KNIFE . . . for all shipping and packing purposes. This trigger action knife is all new, with safety guard. FREE DETAILS, check 23.

MILITARY PACKAGING SUPPLIES . . . This firm fabricates and distributes all the major JAN, MIL and AN packs and materials which are presently available. Also rust preventives, tanks, heat sealers, etc. For catalog FREE, check 24.

Check HELPS By Number MAIL Today!

SHIPPING MANAGEMENT

425 Fourth Ave., New York 16, N. Y.

1/53

1 ☐	8 ☐	15 ☐	22 ☐	29 ☐
2 ☐	9 ☐	16 ☐	23 ☐	
3 ☐	10 ☐	17 ☐	24 ☐	
4 ☐	11 ☐	18 ☐	25 ☐	
5 ☐	12 ☐	19 ☐	26 ☐	
6 ☐	13 ☐	20 ☐	27 ☐	
7 ☐	14 ☐	21 ☐	28 ☐	

If you want SHIPPING MANAGEMENT, 12 months for $3, check here ☐

Name ..... **Your Title or Position** .....

Company .....

Address .....

City ..... **State** .....

LIGHTER DESICCANT . . . this product gives you 35.4% less unit weight with the same moisture check-up and Grade A protection. An improved desiccant for your Method II packs. FREE details, name of nearest representative, check 25.

MARKING CARTONS . . . is done in bold or fine lines with ease with these two felt-tipped markers. Used with instant drying waterproof non-smudging inks. In two convenient sizes. Info, check 26.

ROUND STEEL STRAPPING . . . versatile enough for all types of packing from light cartons to large crates, for overseas packing and heavy pallets. FREE LITERATURE, check 27.

EXCELSIOR STORING . . . Reduce the menace of fire by storing excelsior and highly inflammable packing materials in a fireproof excelsior bin. Meets with approval of state and municipal fire regulations. For free details, check No. 28.

WIRE STITCHING MACHINES . . . You can now save up to 4¢ a carton by wire stitching the bottoms of your cartons! Over 150 different types of stitches. There is a machine for every use you may have. You can save on labor and material costs yet have stronger and faster production. For free illustrated folder, check No. 29.

Just Fill Out the Coupon

And A Rich Mine of Money-Saving Information Will Come Your Way

FREE

In A Few Days,

Yours For

BETTER SHIPPING PACKING *and* **SHIPPING-ROOM KNOW-HOW!**

AMERICAN EXCELSIOR CORPORATION
PROTEX
CHICAGO, ILL.

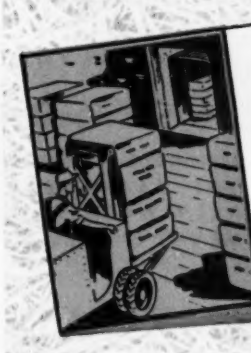
Superior Cushioning PADS and BLANKETS

REDUCE PACKING LABOR

Tailored to size, Superior Cushioning PROTEX Pads and Blankets eliminate costly, time consuming assembly of complicated interior packing. Increased packing output and material savings plus greater protection means greater profits for you and better service to your customers.

MEET CARRIER REQUIREMENTS

PROTEX Pads and Blankets are engineered and manufactured to meet all special requirements of the carriers. Their constant quality and uniformity assure consistent outstanding performance on all carriers.



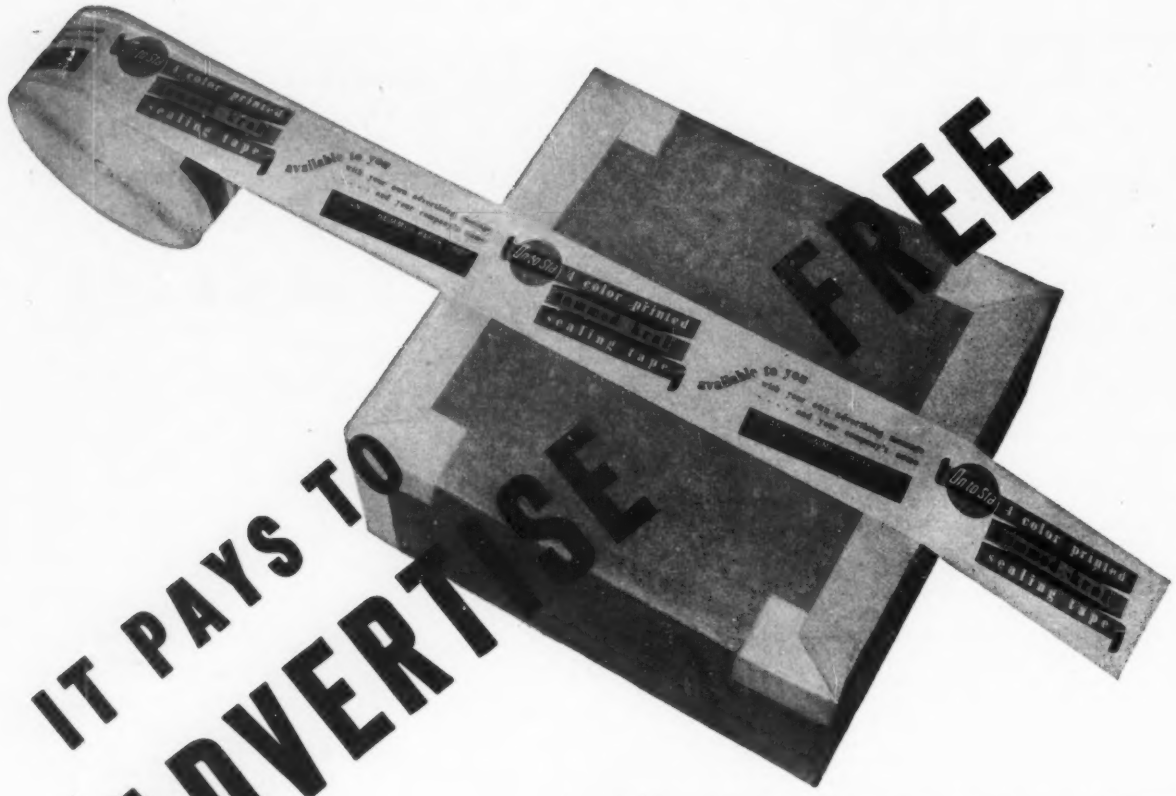
IMPROVE HANDLING PROTECTION

To get maximum protection from rough handling, use PROTEX Pads and Blankets... whether it is a completely cushioned wrapper, cushioning within a container or improved car-loading by using these resilient Pads and Blankets as buffers and dividers.

Consult us– Use our free consultation service. Present your packing problems to us and get our suggestions on how to improve your package performance and save money too! Write or phone us direct.

AMERICAN EXCELSIOR CORPORATION
1000 N. Halsted St., Chicago 22, Illinois

NATIONWIDE SALES & DISTRIBUTION



IT PAYS TO ADVERTISE FREE

WITH ATLANTIC'S "On-to-Sta" 4 COLOR PRINTED GUMMED KRAFT SEALING TAPE

YOUR EVERY CARTON OR PACKAGE CAN NOW BE A COLORFUL ADVERTISING MEDIUM FOR YOU - CARRYING YOUR OWN MESSAGE OR TRADE MARK WHILE SEALED SECURELY WITH 4 COLOR PRINTED SEALING TAPE

YOU GET OTHER BONUSES TOO

A 25 BUNDLE ORDER GIVES YOU 28 1/2 MILES OF SEALING TAPE COLORFULLY PRINTED TO YOUR SPECIFICATIONS.

A 6" MESSAGE CAN BE REPEATED 300,000 TIMES IN A 25 BUNDLE ORDER.

PADLOCKED, PILFERAGE PROOF PACKAGES -- SEALED WITH YOUR COMPANY'S MESSAGE.

YOUR CARTONS WILL BE DUST AND DAMP FREE WHEN SEALED WITH ON-TO-STA 4 COLORED TAPE.

THIS EASY-TO-USE SEALING TAPE STAYS ON PERFECTLY FLAT.

WATER-PROOF WRAPPING PROVIDES SAFE STORAGE.

IDEAS AND SKETCHES FOR 4 COLOR TAPE SUBMITTED UPON REQUEST - WITHOUT CHARGE WITH 25 BUNDLE ORDERS.

ATLANTIC GUMMED PAPER CORPORATION
PRINTED TAPE DIVISION
1 MAIN STREET • BROOKLYN 1, N.Y.

1152

BRANCH OFFICES: PHILADELPHIA • PITTSBURGH • CHICAGO • BUFFALO • BOSTON • HAVANA

Packing A Punch.. By S. H.

SPEAKING at the annual Fall meeting of the American Trucking Associations' National Freight Claim Committee, which was marked by a record attendance, S. L. Meyer. general traffic manager for Joseph E. Seagram & Sons, Louisville, reviewed the latest claim prevention and claim liability developments.

Explaining ways and means for truckers to reduce freight claims, Meyer suggested improved packaging methods and careful handling of freight. He advised the trucking claims officials not to adopt any regulatory packaging system, however, declaring that the railroad system has not led to reduced claims.

Instead of strict and uniform regulations on packaging, Meyer recommended that truckers provide assistance to shippers on sound packaging programs; maintain qualified package engineers where possible; establish working relations with various associations of package and package material manufacturers; improve claims calculating methods; and incorporate the claims cost factor in their rate structure.

★ ★ ★

Air freight volume may surpass the passenger business about 1959 and it also holds promise of a bigger profit per dollar of investment than that which can be made in passenger traffic, the Lockheed Aircraft Corp., says in the newest study of the rapidly growing air freight industry.

The study reviews the progress of the industry since 1945, when the first

(*Continued on Page 22*)

ON OUR COVER

D. C. COOPER CO., a manufacturer of U/L approved wax and plastic dip tanks, developed this automatic tank primarily for speeding processing and packaging of spare parts to meet stepped up military requirements.

The automatic tanks were developed for cleaning metal parts, rinsing, fingerprint neutralizer and rust proofing of spare parts.

The automatic dipping tanks are of various capacities, electrically heated and unheated, and are now in use in nationally known industrial plants and government depots, as an integral link in processing and packaging of military material.

Metal cleaning and dipping operations are automatic. By simply pushing switch, spare parts are loaded and unloaded flush with top of tank.

Mr. Cooper's automatic dipping and agitating tanks have been approved by the Underwriters' Laboratories and bear the U/L approval label.

JANUARY 1953 **VOL. 18, No. 1**

CONTENTS

Free Catalogs & Literature 6

Packing A Punch 9

Defense Packaging Program (Concluded) 11
By Raymond A. Norris

Light-Weight Crate Eliminates Shipping Damage & Pilferage 13

Pallets Today (Part III) 14
By Gene Bremer

Maximum Cushioning Protection With Minimum Thicknesses 16
By R. H. Janssen

Package Engineer Activities 18

New Products & Literature 19

"Listen, Mr. Traffic Manager" 20
By D. R. Dominie

News Review 21

Traffic Reporter 25

SYLVAN HOFFMAN
President

JOSEPH H. FRIEDMAN
Editor

ROBERT M. HOFFMAN
General Manager

STANLEY R. KERMISH
Vice-President

E. B. MEYER
Production Manager

W. L. NOELLE
Western Manager

FRED FEDER
Inquiry Manager

Published 10th of each month by Shipping Management, Inc., 425 Fourth Avenue, New York 16, N. Y. Telephone MUrray Hill 3-6280-1. Sylvan Hoffman, President; Larry S. Harris, Vice-President. Publication and editorial office, 425 Fourth Avenue, New York, N. Y. Not responsible for safety of manuscripts or pictures.

Chicago: W. L. Noelle, 549 W. Randolph St., Chicago, Ill. Telephone Central 6-5164. Los Angeles: Jack O. Hodges, 479 S. Holt Ave., Los Angeles 48, Cal. BRadshaw 2-3935. San Francisco: Geo. F. Haines, 681 Market St., San Francisco 5, Calif. Telephone DOuglas 2-4475. Seattle: Lloyd Thorpe, 209 Senaca St., Seattle 1, Wash.

A HOFFMAN PUBLICATION

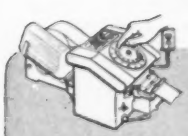
Subscription price $3.00 per year in United States, its possessions and Canada. All other countries, $4.00 per year. Published in U. S. A.

Mark it faster! Move it faster!

with MARSH STENCILS

Increase shipping capacity, serve customers better . . .

Speed of operation in your shipping room prevents bottlenecks, saves you money. To guarantee it, use a MARSH Stencil Machine. Permanent, most readable addressing at low cost, *no* trouble. MARSH exclusive features include the Word Space Button, Sealed-In Lubrication, Hardened Dies and Quick-Replaceable Punches. Hand operated or electric machines. You can try a MARSH Stencil Machine in your own plant without obligation. Write today.



MARSH DIAL-TAPER

MARSH FOUNTAIN BRUSH

MARSH OIL BOARD

MARSH STENCIL INK

MARSH

Write for free handbook

MARSH STENCIL MACHINE COMPANY
75 Marsh Bldg., Belleville, Ill.

Shipping
MANAGEMENT
FOR SHIPPING AND TRAFFIC EXECUTIVES
425 FOURTH AVENUE, NEW YORK 16, N. Y.

JANUARY, 1953
VOLUME 18
NUMBER 1

The Defense Packaging Program Improves All Standards

II

BY RAYMOND A. NORRIS
Chief Packaging Division
Munitions Board Standards Agency
Washington, D. C.

DEVELOPMENT AND USE OF single specifications, elimination of overlapping and duplicating item specifications has been a problem faced by the Department of Defense. What has been done about packing, packaging and preservation in this regard, and how the adoption of standards has been of permanent help even to private manufacturers and shippers, is here told by Mr. Norris. The first part of this article appeared in the December, 1952 issue.

Part of the reason for this high cost has been the direct result of overspecification.

Lack of uniformity together with varying packaging requirements in the various Services and Bureaus are further causes of added packaging cost to the government. It places a burden on the manufacturer which, in many cases, slows down production, reduces officiency, and ties up personnel. With the help of all hands both in the military services and industry, we are making progress in this area.

High packaging costs are, as I have said, a big headache. We are trying to relieve it with the aspirin of critical review of specifications and standards. It is our position that funds spent to meet excessive packaging requirements cost us sorely needed end items. Of course, on the other hand, inadequate and inefficient packaging will result in serious loss of end products.

By streamlining and unifying packaging requirements to provide *adequate* but not excessive protection, we will enable manufacturers to save time, money, and personnel. Those savings will be reflected directly in lower cost to the Government. The manufacturer will get higher production all along the line, for it is simple logic that the elimination of a time-consuming special packaging operation will speed up the whole production line.

We have been emphasizing the revision of and the consolidation of existing basic packaging specifications and the promulgation of new packaging specifications and standards in specific fields.

Adjusting Differences With Industry

The matter of adjustment of differences with industry is an important point. We must establish standards and specifications which industry can meet. Wherever possible, in our whole standards program, we are adopting industry standards . . . standards which are a normal part of industry operation. Where it has been demonstrated that industry developments in packaging have been satisfactor to the Armed Services, those industry packaging practices will be adopted.

Now that the important basic packaging and marking standards and specifications are in relatively good condition, we are taking action to have packaging requirements for essential groups of items brought up to date. We are presently concerning ourselves with

Excerpts from a talk delivered at the Packaging and Materials Handling "Short Course" jointly conducted by the Society of Industrial Packaging and Materials Handling Engineers and the College of Mechanical Engineering, University of Illinois, Extension Division, at Chicago Coliseum, October 13 thru 16, 1952.

bearings, the packaging of steel products, the packaging of materials handling equipment spare parts and assembles, together with a standard for the palletization of items of equipment.

We recognize that the best program in the world will not work unless the people charged with operations are given a chance to understand it thoroughly. We are concerned with educating packaging people, both in the military services and industry, on how best to use the documents we provide.

Joint Packaging School

The Joint Packaging School at Rossford Arsenal has already proved its worth, but we feel that the subcontractor on the West Coast or in the Deep South should have a chance to provide his personnel with this training too. Rossford is inaccessible to many of the little fellows charged with getting defense goods out. We are presently investigating the possibility of setting up similar schools at strategic locations throughout the country.

In addition, we have in mind the possibility of a packaging caravan . . . or several . . . whose training facilities can be housed in vans and transported to plants, military bases and installations, for on-the-job training sessions. We are going to make every effort to pass the word to the people who are doing the job.

A few minutes ago, I mentioned a palletization standard we have in the works. It might serve to show how our program will prove of benefit not only to the military but to private enterprise in *its* internal operations.

Palletization of Military Supplies

Palletization and the mechanical handling of military supplies is increasing very rapidly. While military storehouses are in general single story structures and adaptable to mechanical handling, industry warehouses in the past have in general been multistory structures adapted for a conveyor operation. However, industry, applying some of the excellent lessons learned during World War II, is building many single story warehouses and is rapidly expanding the palletization technique. The military services pointed the way in the field of mechanical materials handling and the fruits of our labors on this palletization standard will also be available to industry.

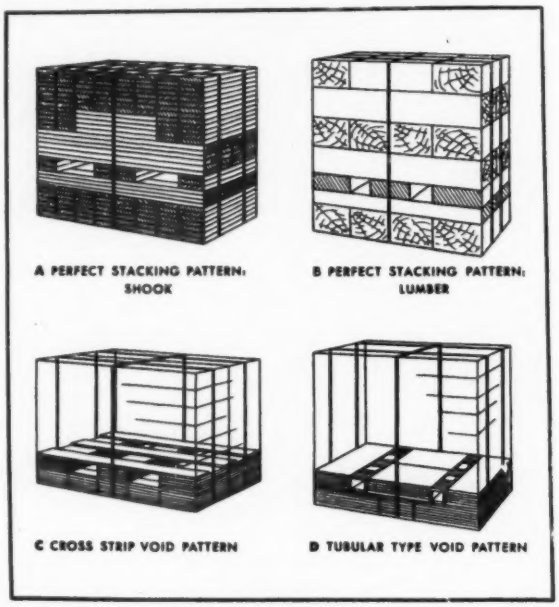
Currently considerable emphasis is being placed on packing for transportation by air. This air transport, being expensive, is resulting in the design of many packs in a wooden shipping container, for shipment by conventional surface transportation to storage depots or points of aircraft loading, with an inner pack of light weight for the aerial journey. The outer box is removed just prior to loading in aircraft. It is anticipated that a document covering packaging of military items for air shipment will be available in the near future.

In many standard World War II packs the combined weights of shipping containers amounted to approximately 30% of the gross weight. The new deal in

(*Continued on Page 27*)

Truck-Trailer Handling Of Lumber Saves Man-Hours

By specifying that its lumber be shipped from the mill in unit loads and by using modern mechanical handling equipment in and around its plant, a large mid-western manufacturer has achieved a saving of 92 man-hours in the movement of board lumber from receiving docks to storage and production areas.


A PERFECT STACKING PATTERN: SHOOK
B PERFECT STACKING PATTERN: LUMBER
C CROSS STRIP VOID PATTERN
D TUBULAR TYPE VOID PATTERN

Four types of unit loads which have been successfully used in truck-trailer operations.

Formerly, railroad cars containing approximately 24,000 board feet of lumber were unloaded manually, a few loads at a time — the boards being placed on gravity roller conveyors, carried through a basement window to a storage area, and hand piled to ceiling height.

Now, the cars are loaded at the mill in unit loads of about 400 pieces, without pallets. A typical carload consists of 11 unit loads. A fork truck picks up unit loads in the freight car and puts them on the waiting trailers. Then, the trailers are hauled 500 feet to the storage area where another fork truck unloads the trailers and stacks the boards. Later, as they are needed, the unit loads are again handled by fork trucks and trailers as they are brought to the production area.

The old handling method required six men working

(*Continued of Page 28*)

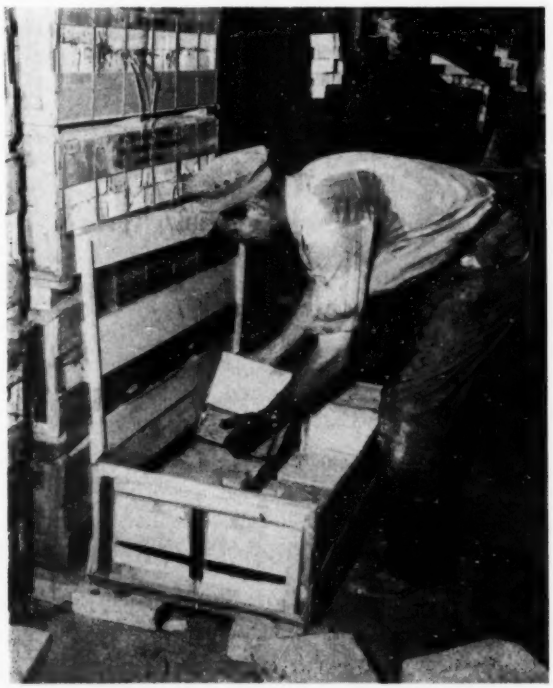
Light Weight Crate Eliminates Shipping Damage and Pilferage

Stevens Fire Brick Co.
Macon, Ga.

PROOF THAT HEAVY shipping containers are not necessarily the answer to packing heavy commodities is given by the Stevens Fire Brick Co. of Macon, Ga., which ships fragile and heavy fire bricks, tiles, and other special refractories all over the world.

The 86-year-old company ships as much as 640 pounds of refractories in a wirebound crate that weighs only 32 pounds, or only five per cent as much as the load with which it is packed.

Furthermore, this relatively light-weight crate has practically eliminated shipping damage and pilferage and has slashed packing costs by at least 25 per cent, partly by trebling the packing capacity of unskilled workers. Due to container failure, the company consulted trained shipping container engineers and, as a result, converted to the use of scientifically designed machine-made wirebound crates specifically created for carrying the company's heavy refractories in export and domestic shipment.



Mechanic packs heavy fire brick in light-weight crate. The Stevens Fire Brick Co. ships these heavy bricks as well as heavy weight refractories in these light-weight crates. Some take as big a load as 640 pounds.

Wirebound shipping container engineers created a crate made to measurements to meet the requirements of packing a wide range of refractories of varying sizes and shapes so that little interior packing is required—and that only scrap lumber or straw to fill vacant spaces.

Immediately, the company's reports of shipping damage ceased—only one charging damage due to container failure being received since the conversion to wirebound crates! The capacity of packers increased from five to 15 crates per day, or 200 per cent.

The phenomenally successful wirebound crate consists of only three parts—the two nailed-in ends and the one-piece wirebound "mat" that comprises the

(*Continued on Page 28*)

Theft Prevention Methods Found Effective Against Package Losses

Theft prevention measures have been a factor in keeping down both truck cargo and individual package thefts in the last three years, according to Jack Seide, president of Babaco Alarm Systems.

As reported in "The New York Times". Mr. Seide said that in face of the violent upsurage of crime, trucking losses could have topped $500,000,000 in the last three years instead of the estimated annual $75,000,000 in that period.

The majority of shipments of high value goods susceptible to theft, Mr. Seide said, move under the protection of truck burglar alarms and under careful routing and terminal controls designed to eliminate exposure to theft. Shippers, he said, are deeply indebted to the trucking industry for the foresight shown in protecting the larger loads which now move over vastly greater distances.

Mr. Seide added that in the last year many carriers, which have eliminated full-load thefts and hi-jacking, are making a drive against crime through control of the one-case thefts from loaded vehicles.

"Statistics have shown," he said, "that single-case losses in the aggregate have represented an even greater toll to carriers and shippers than the full-load losses, and yet they have been even more difficult to control. Now, however, many of the carriers have discovered that the single-case losses can be curbed and practic?"y

(*Continued on Page 29*)

Vincent Koza, power truck operator at the Robert Gair Piermont plant, loads a pallet containing 30,000 printed cigarette cartons onto a highway truck. This is an example of the "power package" type of pallet unit.

Pallets Today

By GENE BREMER
Of United States Department of Commerce

III

"PALLETS Today", the exclusive series presented in SHIPPING MANAGEMENT through the courtesy of Mr. Bremer, Staff Member of the Department of Commerce Quarterly, "Containers and Packaging Industry Report," continues with a discussion of how utilization of pallets may be further increased. The first two articles in this series appeared in the November and December issues.

Industry representatives listed numerous reasons for not being able to fully utilize the pallet system. The most frequently mentioned limitations are discussed below with suggested remedies for some of them.

Inadequate warehouses was often mentioned as one of the chief obstacles for installing pallet operations. Older style warehouses were often constructed with low ceilings, weak floors, and limited aisle space. Several respondents throughout the country indicated they were planning future warehouses to take full advantage of the many potentials offered by pallets.

Reports indicate that railroad reluctance to grant freight concessions for the use of pallets has resulted in high freight costs.

Inability of many concerns to fully utilize high cost fork trucks was also given as a reason for failing to install pallets.

Lack of identical merchandise and merchandise not adapted to pallet operations were probably the chief deterrents when decisions were made by firms against palletizing. Many container manufacturers have solved these problems by designing containers to make irregular or small size merchandise adaptable to pallet use. It is apparent from the survey that many container manufacturers are continuing to overlook the possibility of offering this type service to their customers.

Most of the firms contacted report that the advent of palletization had no effect on the containers and packaging materials in current use. Several firms, however, reported that they had either strengthened or changed the structural design of their containers. For instance, an Illinois farm machinery producer expressed a preference for light wood boxes. He contended they were relatively strong and pilfer-proof for shipping his products on pallets.

Some Weakness Observed

Weakness of some corrugated shipping containers was reported by a Cleveland stevedore company. This same observation was also made by several railways and motor carriers handling palletized shipments. A grocery warehouse in the Mid-West eliminated this weakness by using solid fibre boxes for shipping heavier items. Generally, however, packages are designed for the commodity and few complaints were received concerning structural weak containers.

Lack of uniform sizes and square containers were by far the most frequently mentioned complaints received concerning the adequacy of containers for palletization. Rectangular shapes with the length at least 1½ times the width and height of the container were recommended. These dimensions made it possible for the load to be "bricked" or "locked" to prevent shifting.

The inability of industry to standardize both pallets and containers constitutes one of the biggest "bottlenecks" in bringing pallets from the warehouse and production line stage into the distribution channels. A

Above: A new square type of support pillar is shown in this fibreboard expendable pallet.

materials handling expert of a large paperboard box company says, "This can be accomplished only when container manufacturers are willing to consider the complete system of shipping from the point of origin to the customer. To fully understand these implications they must consult with a materials handling man who may indicate necessary changes." It was his opinion, however, that his knowledge is increasing rapidly and at the present pace a general understanding would probably be reached in approximately five years.

Solving a Bottleneck

The two examples below indicate how this container-pallet standardization "bottleneck" was solved. Early in World War II the tremendous shipping volume of the Brooklyn Naval Clothing Depot made it, almost overnight, one of the world's largest handlers of clothing. An entirely new approach was used to solve the momentous handling task. It was decided to fit the container to the pallet which was in turn fitted to the boxcar. Tons of thousands of 48″ x 48″ pallets were ordered. Containers were made for this size pallet. The results in labor and time savings accomplished were unbelievable. This study and solution illustrates how pallet construction can have a decided effect on both container size and construction. Further study of the problem has resulted in the entire military system now utilizing the 48″ x 40″ pallet in order to facilitate all commercial carrier shipments.

In the food industry, grocerymen used a similar program to bring about the best method of handling food shipments. Working in cooperation with the Commodity Standards Division of the Department of Commerce, they concluded that the following pallet sizes could be used to best advantage throughout their industry:

1. A 40″ x 32″ pallet for handling loads of 2,000 lbs. or less.
2. A 48″ x 40″ pallet for heavier loads.

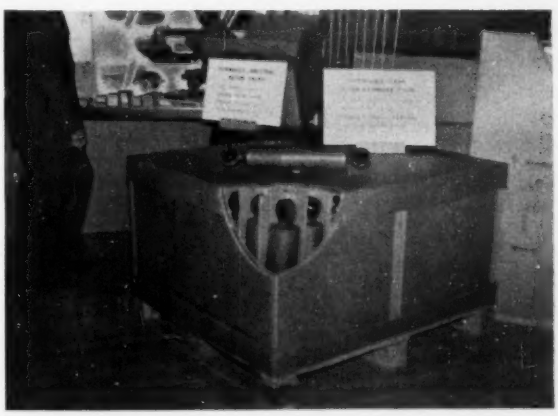
Recommendations were also made for the most desirable container characteristics for grocery handling on pallets. They included:

1. Horizontal packages.
2. Containers of adequate strength—shipping cartons should be strong enough to permit 16 ft. stacks.
3. Packages should not exceed 50 lb. weight.
4. Packages containing light material should not be over 4 cubic feet in size: those containing heavy materials should not measure over 1 cubic ft. Heavy cases significantly smaller than this, i.e., baby foods, extracts, etc., should be glued or taped to meet these requirements.

The effectiveness of this program was reflected repeatedly in the recent Commerce Department survey taken in conjunction with this survey. Grocery wholesalers were found to be the only distributors who had satisfactorily adapted this method of handling on an *industry-wide* basis. The enormous savings realized

(*Continued on Page 29*)

Above: Palletized material is placed into cars (and truck trailers) with motorized pallet trucks.



Delco products ships tank shock absorbers in corrugated board trays on non-returnable wood pallets.

Maximum Cushioning Protection with Minimum Thicknesses:

Applying Basic Engineering Principles

By R. R. JANSSEN,
Material & Process Engineer
North American Aviation, Inc.
Los Angeles, California

AS THE SARDINE CANNER will tell you, the object of packaging is to get the "mostest in the leastest." Fortunately for him, the sardine canner like the rubber ball manufacturer need not provide space for cushioning. Most of us are not so lucky. When an appreciable amount of cushioning is required, it is especially important that we get the mostest cushioning in the leastest space. It is the object of this paper to provide a method of cushion selection to get the mostest protection with the leastest thickness of cushion.

In this evaluation of cushioning materials we will limit ourselves to that property which allows a cushioning material to absorb shock without damage to the part. In evaluating the cushioning material on this basis it is necessary to consider first how a cushion cushions.

Figure 1

Figure 1 shows a typical part of weight (W) suspended above the ground by a height (h). A part in such a condition has potential energy equal to the product of its height times its weight, ($E = Wh$). It is this energy which must be absorbed by a cushion when the part is dropped. Our first job, then, is to evaluate the energy absorbing characteristics of a cushion.

Figure 2

Figure 2 shows a compression load-deflection curve. This curve is established by applying a load, such as by placing various weights on the cushion, and measuring the resulting deflections. A number of points can be established in this way through which the curve is drawn. Figure 2 is just such a curve for a particular creped cellulose wadding. It is well recognized that the energy absorbed by such a cushion is equal to the area under the load-deflection curve. For example, at a load of 900 lbs. the resulting deflection is 0.185 in. and the area under the curve is 55 in.-lbs. This area represents the energy which the cushioning can absorb at a 900 lb. load.

Figure 3

By determining the area under the curve for successive loads, a curve of Energy (E) vs. Load (F), Figure 3 may be plotted. This energy-load curve shows the energy which is absorbed by the cushion for each particular load. To determine where we should operate on this curve we will determine the energy which must be absorbed, which you recall, is equal to the weight of the part times its height of drop. Knowing the energy that must be absorbed, the load which will be exerted on the part can be determined by referring to Figure 3. The object of our cushioning then, is to absorb the necessary energy, keeping the resulting force below the fragility limit of the part.

In examining Figure 3 it is apparent that if we try to absorb all the energy of the cushion, very high forces are developed, which defeats the purpose of our cushion. If, on the other hand, we try to operate at extremely low forces, it is apparent that we absorb such a small amount of energy that we are using the cushion inefficiently. Somewhere between these two extremes is apparently the place at which we should try to operate in order to get the "mostest" energy absorption without damaging our part and to do so with the "least" thickness of cushion.

Cushioning Curves

Text at left fully explains the diagrams on this page.

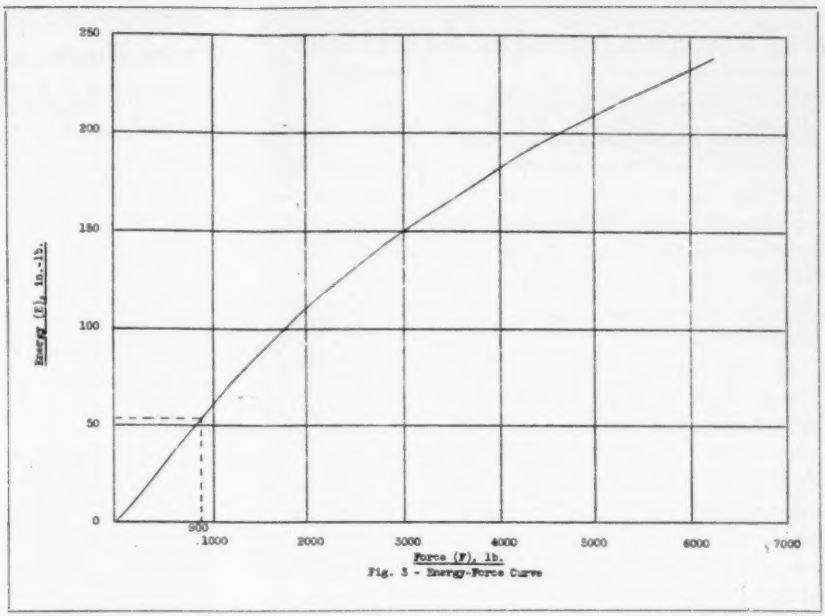
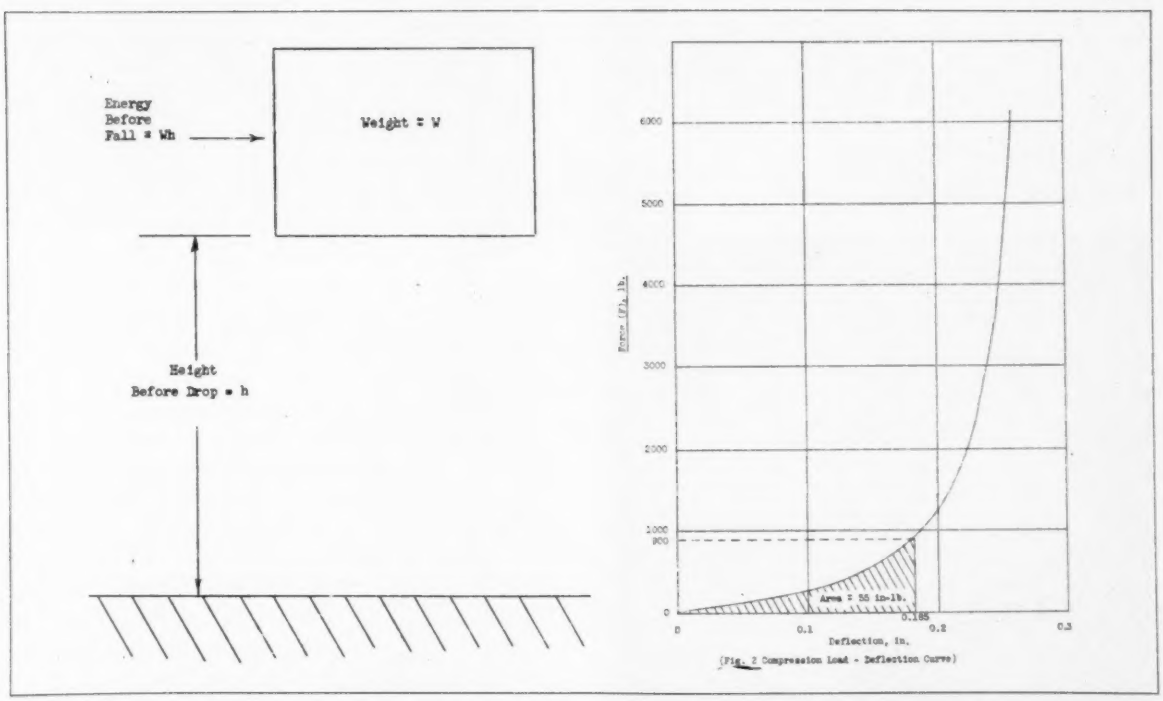


Fig. 3 - Energy-Force Curve

Figure 3. Above: By determining the area under the curve for successive loads, a curve of Energy (E) vs. Load (F), we may plot an energy-load curve which shows the energy which is absorbed by the cushion for each particular load. To determine where we should operate on this curve we will determine the energy which must be absorbed. The object of cushion is to absorb the necessary energy, keeping the resulting force below the fragility limit of the part.



(Fig. 2 Compression Load - Deflection Curve)

Figure 1: The typical part of weight (W) is suspended above the ground by a heigth (h). A part in such a condition has potential energy equal to the product of its heigth times its weight (E Wh).

Figure 2: A compression load-deflection curve. This curve is established by applying a load, such as by placing various weights on the cushion, and measuring the resulting deflections. A number of points can be established in this way through which the curve is drawn.

A talk delivered at the Packaging and Materials Handling "Short Course" jointly conducted by the Society of Industrial Packaging and Materials Handling Engineers and the College of Mechanical Engineering, University of Illinois, Extension Division, at Chicago Coliseum, October 13 thru 16, 1952.

Package Engineer Activities

MH Groups Discuss Role Of PR's At Mackinac Isle

America's railroads represent the largest material handling machinery in the world, in point of total capacity declared William H. Schmidt, Jr. Executive Editor of Railway Age during the Mackinac Island, Mich. meeting of associations representing various phases of the material handling equipment manufacturing industry.

Vertical trade associations—the Caster and Floor Truck Manufacturers' Association, the Conveyor Equipment Manufacturers' Association and The Industrial Truck Association—met some time ago in a joint industry meeting under the sponsorship of the umbrella organization, The Material Handling Institute, and heard Mr. Schmidt venture the opinion that only a start has been made in tapping the potentials of modern equipment—in the freight house for handling less carload freight; in the materials yards for moving and storing the railroads' own purchases; and in stations, for moving mail and express.

Mr. Schmidt drew the conclusion that the material handling industry can absolutely guarantee themselves a bigger volume of merchandise on the railroads if the industry can cut cost in station handling. He opined that there are few industries in which the material handling expert holds so much power of life or death for his customer and for his own future.

Paper Roller Tilter Is "Ancient" But Still Good

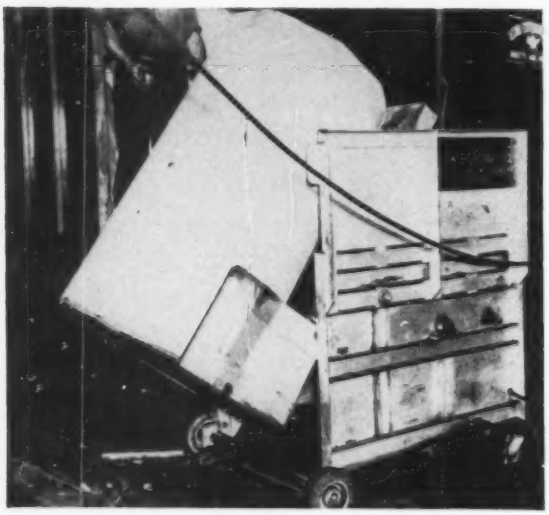


Photo Courtesy Lewis Shepard Co.

The amount of newsprint unloaded during the past 16 years by this paper roll tilter would circle the earth 8 times. The 1,000,000th roll was recently photographed as it was lowered effortlessly to street level outside the the Boston Record American plant.

Conveyor Carries Goods To And From Storage, Frees Elevator

Norton Company, Philadelphia, Pa., uses an inclined reversible belt conveyor to carry incoming abrasive wheels directly to basement storage. This same conveyor, when operated in the other direction, returns outgoing wheels from the basement to the shipping platform. The two-way conveyor frees an elevator for other duties, avoids congestion on the shipping platform, and speeds the loading and unloading of highway trucks. The installation is an excellent example of how the versatile conveyor often can be applied to solve vexing materials handling problems.

Photo & Data Courtesy Lamson Corporation.

Crated abrasive wheels being loaded onto conveyor which takes them from the basement to the shipping-platform at the Norton Company, Philadelphia, Pa. Reversible belt-conveyor carries wheels both to and from storage.

Before Norton's 25-foot belt-conveyor was installed, an elevator carried the crated abrasive wheels to and from storage. This required a "batch-type" operation involving three steps: (1) loading the elevator, (2) taking the elevator up or down, and (3) unloading it. Elevator delays resulted and cases accumulated on the shipping platform causing excessive congestion.

The inclined belt-conveyor now provides a "continuous flow" to and from storage. Incoming abrasive wheels, in crates or packages weighing from 100 to 400 pounds, are placed on the conveyor as soon as they are taken from the highway trucks. The 1000-pound-capacity conveyor then takes them to the basement where they are stored. With the new system, truck loads can be unloaded and stored in 1½ hours. Out-

(Continued on Page 30)

NEW PRODUCTS & LITERATURE

SURVEY ON MATERIAL HANDLING

One of the most comprehensive surveys on Material Handling ever published is available from the Consulting Firm of Wheeler-Brady, Inc. This survey is part of the famous Wheeler-Brady Cost Reduction Training Program, now in use by major American firms.

Among the subjects covered in the survey are: Material Handling Principles, Material Handling Equipment, Changing Existing Methods, Planning A New Layout, Warehouse and Storage, Increased Capacity, Product Protection, Safety, Morale, Obtaining Better Service, and Increasing Operating Efficiency and Lowering Costs.

Also included is a valuable Check Sheet which will enable plant personnel to study and evaluate present material handling operations. It is also designed to test the present activities of operating personnel.

This literature, published by Wheeler-Brady as a service to American Industry, will be of tremendous aid to any user of material handling equipment, big or small. In addition to an examination of basic material handling theories and equipment, it details the more comprehensive aspects of this vital subject. The survey is already considered a bible by cost reduction minded companies.

CASE LINER LITERATURE

The new bulletin, "Submerso-Pak Case Liners" is now available from Cincinnati Industries, Inc. This brochure describes the moisture-proof, watertight, "Submerso-Pak" case liner made from Cindus X-Crepe, an asphalt- laminated double-creped kraft paper. The bulletin features a step-by-step application of "Submerso-Pak" to a typical packaging problem and describes in detail the forming of tailored-to-fit case liners and the simple and secure method of sealing them.

MAGNESIUM BARREL SKID

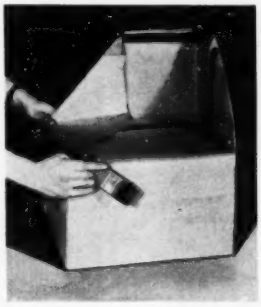
Introduction of a new, all-magnesium barrell skid for drum and barrel handling, has been announced by Magline, Inc.

Of welded construction throughout, the barrel skid is fabricated entirely of magnesium, and combines extreme light weight and ease of handling, with certified, capacity-rated strength. According to the manufacturer, the new unit speeds the handling of drums and barrels, reduces the risk of lifting injuries, and assures greater safety to men and equipment. The skids are available in standard sizes, ranging from 5 feet to 18 feet in length. Special sizes are also manufactured.

The company manufacturers a diversified line of magnesium handling equipment, including magnesium dock boards and hand trucks.

WATER RESISTANT CASE LINER ADHESIVES

Fast initial tack, retack and long "open time" are features available in a series of newly designed water-emulsion adhesives announced by Paisley Products, Inc. They were developed by the Paisley Laboratory for application to seams in the manufacture and in the final cloosure of water-proof paper



bags, wraps and case liners to meet the requirements of the new Military Specification MIL-A-140A, (which supersedes JAN-P-140 specification).

In addition to their use in military depots, arsenals, and for contractors and vendors to the Armed Services, the new features make these adhesives useful for all domestic and export packaging of non-military goods which require protection against the elements. The adhesives can be applied by machine or by hand brushing.

Water-emulsion adhesives are listed as Class 2 in the Military Specifications, suitable as Grade A and Grade B for subsistence and non-subsistence items. Tests conducted by the manufacturer indicate the adhesive has fungi resistance, low temperature flexibility at zero degree F. and resistance to water penetration of 8 hours minimum.

Strong bonding of water-proof barrier materials, after water immersion tests and heat aging, is reported well within specification limits. The initial tack on machine and hand applicatons conform to normal machine speeds and timing of fabricating and assembling operations. The long "open time" available affords efficient handling of large unwieldy bags and case liners. This long temper range does not interfere with its fast tack when seams are folded for final bond.

The adhesive can be applied to both surfaces in seaming operations and allowed to air dry, then combined together to form a permanent bond. This retack feature of the adhesive to itself eliminates spoilage or waste when there are delays in fabricating or assembly operations. Another important point is resistance to flow at high temperature (140°F.) whereby the adhered seams will not shift, flow or separate after 24 hour subjection to this heat.

Literature and prices of products mentioned can be obtained if you drop a post card to News Editor, SHIPPING MANAGEMENT, 425 Fourth Ave., New York 16, N. Y.

Companies having new product stories should send them to the same address.

INTERIOR CUSHIONING MATERIAL

A new and patented Compounded Polyvinyl Chloride developed by the Calresin Corporation and designated "CPC" has proven such outstanding shock proof qualities in Armed Service testing that it is being used for very unusual packaging requirements.

Under various weights it does not compress the same as air foam products, nowever, it compresses considerably more than many types of rubber now on the market. This feature results in a cushioning or floating of the article being packaged. Simultaneously, Calresin CPC meets many requirements and specifications which cannot be accomplished through any known rubber compounding, including extreme cold temperatures. Among its other outstanding features CPC can be formed or molded inexpensively in any shape

(*Continued on Page* 23)

D. R. Dominie's

"LISTEN Mr. Traffic Manager"

LAST MONTH WE DID OUR Christmas shopping, at least that part of it which was to be done by mail order catalog. Many of our friends were doing the same, some of whom had already received their merchandise. This may seem very remote from traffic problems, yet in effect traffic is directly concerned. In one respect it is a layman's view of transportation and I will be truthful and state that I could not answer some of the questions which my wife asked me in regard to the transportation costs which are to be figured on the order blanks.

We have often stated, not in this column, but to traffic personnel, that one of the best understandings of elementary traffic can be obtained from mail order catalogs. We are particularly impressed with those put out by such large concerns as Sears Roebuck, Montgomery Ward, John Plain Co., etc. The shipping instructions, the rate structures, parcel post rates and charts, freight rates and other factors pertaining to transportation are extremely well defined in a few pages so that even the layman may understand and figure his costs.

A little elaboration or explanation by an experienced traffic man would enable an inexperienced individual to gain quickly a partial knowledge of the subject. By the same token an experienced traffic man can gain valuable knowledge particularly in respect to the manner and form of order blanks, methods of shipping and suggested routing through studying these catalogs.

The most interesting point is the method by which the various concerns assess postage charges. Some have a form of shipping weights per item from which charges may be found on a chart. Others assess a flat charge sealed in accordance with the amount of material ordered. Others go by a percentage of purchase price.

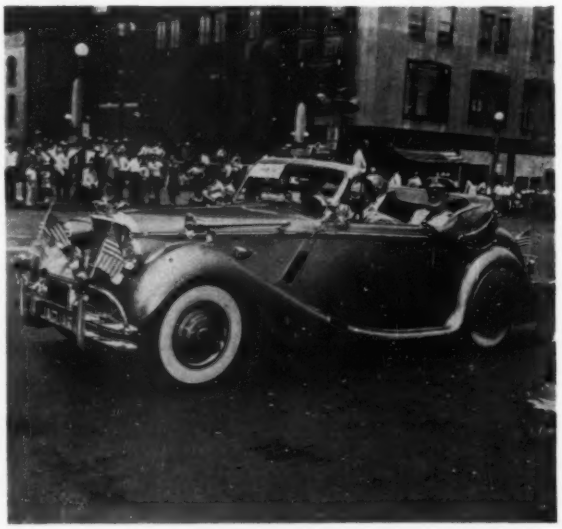
★ ★ ★

A READER RECENTLY ASKED US for our opinion in regard to the percentage of shipping costs as against net sales. Shipping costs in this particular instance included labor, supplies, rent, overhead, repair, maintenance, and depreciation of equipment. Again, as in many Traffic problems, this could be defined as strictly an individual problem depending on the material which is handled. It certainly would cost as much to ship a bag of cement as it would a small diamond. However, the difference in value or net sales is hardly comparable. In each case it would take one man to accomplish the shipment, yet the cost comparison would be completely different. In the case of the cement the cost for forwarding would probably go as high as 12-15% of net sales, whereas the diamond shipment would be a small fraction of 8%. This is, of course, an exaggerated example but it goes to show how valuable these figures can be.

The only true way to find whether shipping costs are too high is to make, or have made, a comparative analysis of concerns handling similar materials. Someone has mentioned that 5% is considered a standard figure. We feel that this is too high for an average. Taking a nationwide average which includes all materials we figure that shipping costs should range between 1 and 3% of net sales. This, of course, would mean that high valued items would fall lower than 1% and vice versa. If a person wishes to compare his shipping costs, he should, if possilbe, review those of another comparable company. After that it would

(*Continued on Page* 30)

Corrosion Prevention Tank Mfr. Drives High Officials In Chi.



In the photo above Mr. D. C. Cooper, processing tank and chemical manufacturer, is shown driving General Gates of the Air Force, General Ferry of the Illinois National Guard, Lt. Governor Dixon of Illinois in an American Legion parade held in Chicago some months ago. The car is owned by Mr. Cooper.

GOVERNMENT ▼ PERSONALITIES

★ NEWS REVIEW ★

Digest of recent activities in the packing and shipping field

ASSOCIATIONS ▼ COMPANIES

MILLER TO CHAIR CONSERVATION COMMITTEE OF WASTEPAPER CO.

Joseph S. Miller, president of the New Haven Pulp & Board Company, New Haven, Conn., and the Bartgis Bros. Company, Ilchester, Maryland, was chosen Chairman of the Eastern Conservation Committee of the Wastepaper Consuming Industries, it has been announced by the Board of Directors, Mr. Miller succeeds George E. Dyke, president of Robert Gair Company, Inc., New York, N. Y., who retires on January 1 after having served as Chairman of the Committee for seven years.

Ralph A. Wilkins, vice president of Bird & Son, Inc., of East Walpole, Mass. was named Vice Chairman of the Committee; J. R. Kennedy, president of the Federal Paper Board Company Bogota, N. J., Treasurer, and W. Page Selby, of Sonoco Products Company, Garwood, N. J., Secretary.

Members of the Executive Committee chosen were Messrs. Miller, Kennedy, Dyke and Henry D. Schmidt, president of the Schmidt & Ault Paper Company, York, Pennsylvania.

The officers chosen will serve for one year.

LOCOMOTIVES INSTALLED IN 10 MONTHS ALMOST EQUAL 1951

Class I railroads put 2096 new locomotives, or 2,667 power units, in service in the first ten months of 1952, the Association of American Railroads announced today. In the same period in 1951. they installed 2,135 new locomotives or 2,929 power units.

Of the total number installed so far this year 2,080 were diesel and consisted of 2,650 power units. The remaining locomotives included 15 steam and one electric. In the first ten months of 1951 there were 2,117 diesels. consisting of 2,909 power units, put in service. In addition 16 steam and two electric locomotives were installed in that period last year.

New locomotives installed in October this year totaled 203, of which all were diesel except for two steam. In October last year 279 locomotives were put in service. all being diesel except for two steam. The 201 diesel locomotives installed in October this year consisted of 248 power units, while the 277 diesel locomotives installed in October a year ago consisted of 354 units.

DIRECTOR OF SAFETY & SECURITY NAMED BY 3M's

Promotion of Robert W. McElroy to the newly created position of director of safety and security for Minnesota Mining & Manufacturing Co. and its subsidiaries has been announced.

C. P. Pesek, vice president in charge of engineering and properties, said McElroy would coordinate all phases of safety, security and fire protection in 3M plants, warehouses and offices and those of 3M subsidiaries.

AUTOMATIC APPOINTS KEWIN ASSISTANT ADVERTISING MANAGER

Appointment of Bernard M. Kewin as assistant advertising manager. for the Automatic Transportation Company, Chicago, has been announced.

BERNARD M. KEWIN

Kewin will carry out functions formerly performed by Robert M. Whitney, Automatic advertising manager, who recently was named sales manager, Automatic. Whitney will continue to direct the advertising and public relations programs.

Kewin was formerly assistant advertising and sales promotion manager for Cribben and Sexton company, Chicago. Previously he was product promotion specialist for Servel, Inc.

T. A. CARLSON NATIONAL PACKING EXPERT ON WOOD, PASSES AWAY

Thorwald A. Carlson 59, nationally known packaging expert, died October 24, 1952, at a Madison hospital. Carlson directed far-flung packaging operations of the military forces during World War II as chief of packaging research at the U. S. Forest Produtcs Laboratory. He had been ill since midsummer.

A research engineer at the Laboratory for 31 years. Carlson specialized in packaging throughout his Laboratory career. In 1941, when lend-lease and military overseas shipping problems required great expansion of the Laboratory's research, he organized and assumed charge of a staff of experts that numbered, at the peak of World War II activities, more than 150 men and women.

Besides doing packaging research for the Army Air Force, Ordnance Department, Quartermaster General, Signal Corps, Corps of Engineers, various Navy branches, the War Production Board, and other Government agencies, Carlson's staff visited manufacturing and shipping centers throughout the United States and abroad for special packaging consultation work. He headed a packaging mission to England during 1943.

Military experts have credited the Laboratory's work under Carlson's guidance with saving uncounted millions of dollars worth of war material such as food and clothing, ammunition, guns, vehicles, and aircraft from damage during shipment. It was estimated that by the end of the war packaging had been so streamlined and reduced in bulk that four ships could transport the equipment that earlier had required five.

ASS. OF PORT AUTHORITIES ELECTS KINSELLA PRESIDENT

Dr. M. D. Kinsella, of Toronto, Canada, has been elected to succeed Henry W. Sweet, of Savannah. as president of the American Association of Port Authorities, which held its 41st annual convention Nov. 11-14, at the General Oglethorpe Hotel here.

Other new officers of the international port group are: Warren D. Lamport, of Seattle. Washington, first vice-president; Gen. W. F. Heavey, of Houston, Tex., second vice-president and D. C. Nevins, of Camden. N. J., third vice-president. Paul A. Amundsen, of Washington, D. C., was continued in office as secretary and treasurer of the organization.

Dr. Kinsella. 64, formerly was first vice-president of the A. A. P. A. The representative of the Canadian Government on the Toronto Harbour Commission since 1947, he is serior surgeon at both Toronto Western Hospital and Toronto General Hospital, Wellesley Division. He is a Fellow of the American College of Surgeons, and a director of the Allison Machinery, Ltd.. Senator Mines, Ltd., and Bagamac Mines, Ltd.

STANDARDIZATION OF TARIFFS NOW UNDER STUDY BY A.T.A.

The trucking industry's National Traffic Committee will employ a full-time staff to complete a study designed to promote standardization and ultimate uniformity in motor carrier tariff rules and regulations, F. G. Freund, committee secretary, has announced.

The preliminary task of surveying and analyzing the rules now carried in agency tariffs throughout the country was done by an Advisory Subcommittee on Form

Sterling Supreme Gummed Tape

PEOPLE MAKE THE BIG DIFFERENCE . . .

Here's our plant superintendent, who has had 20 years experience with The Gummed Products Company. It is men like him, with a practical knowledge of their job and an intense loyalty to their company, who make Sterling Supreme Gummed Tape stand out above all others today.

Quality Controlled

. . . in all departments

Money can buy machinery, but it takes more than money to establish and maintain high standards. Both management and men must have "know-how," the will, and the pride in their profession—that "extra something" that builds reputations.

39 years of continuing research in all departments of The Gummed Products Company—39 years devoted exclusively to the manufacture of gummed products—have culminated in our super-standard—Sterling Supreme Gummed Tape.

Sterling Supreme Gummed Tape is made to perform a service—is never made to meet a price.

Be safe—insist on genuine Sterling Supreme Tape the next time you order sealing tape.

Your nearby paper merchant who handles Sterling Supreme, is your reliable source for all top-quality paper products.

THE GUMMED PRODUCTS COMPANY

TROY, OHIO—Sales Offices in principal cities

The Gummed Products family . . . Sterling Supreme Gummed Tape, Trojan Imperial Gummed Tape, Locker Tape, Jet Tape, Cord Tape, TreBond (Bonding Tape), Gumcoid Printing Papers, Laminated Foils and Papers, Box Tapes, and many other specialty products.

and Construction of Tariffs, headed by C. L. Lawson of Chicago.

In announcing the Traffic Committee's resolution authorizing continuation of the program by a permanent staff, Mr. Freund said it "embodied a warm expression of its appreciation for the long and efficient services of Mr. Lawson," and represents an advanced phase of one of the committee's major projects.

Provides Research Material

Begun more than two years ago, the subcommittee's work will provide the present staff with a vast amount of research material, he said. The subcommittee has submitted three voluminous reports — two providing a detailed survey and critical analysis of the tariff "Exceptions," and one dealing comprehensively with the subject of general tariff rules, which are broader in scope than Classification or Exception rules.

The Committee's immediate objective will be to set up standards to be used in the formulation of each type of Exception or General rule, Mr. Freund explained. With the standards as a guide, molel rules will be drafted, uniform and comprehensive captions worked out, and uniform rule numbers assigned. The Committee will then ask for suggestions from the various regional publishing agents, the ICC's Bureau of Traffic, the shipping public and the carriers, he said.

Model Rules Developed

"In this way," Mr. Freund declared, "model rules will be developed which will have the backing of all elements of the industry before actually being docketed for application in carriers' tariffs."

The final resuts of the program will be published as the Committee's Tariff Manual Number Two, which will complement Tariff Manual Number One. The latter, published more than two years ago, outlines the step-by-step procedure for compiling motor carrier tariffs.

Packing A Punch

(*Continued from Page* 9)

all-freight carrier, The Flying Tiger Line, was organized; analyzes previous forecasts of other groups and then presents a series of projections based upon current and past data and studies. The report was prepared by L. R. Hackney and C. J. Rausch.

The forecast that more money can be made out of air freight traffic than passenger business is one of the first independent judgments rendered in support of a belief which the all-freight carriers have expressed for some time. It is based upon the assumption that freight, as in other forms of transportation, will predominate as the major

money-maker of the air transportation business.

The Lockheed study predicts that somewhere between mid-1953 and early 1960, air freight traffic will equal passengers volume. These dates represent the spread of previous forecasts, all of which agree that freight will catch up with passenger volume.

Study Points

The study says:

"It will be noted that under actual operating conditions, the air freight fleet shows an earning capacity that is considerably larger than that of the passenger fleet. The problem of no show passengers, complicated reservations systems, people who become ill or who are interested in that last cocktail before boarding, does not exist in cargo operations. The record for the year 1950 and other years demonstrates that higher average load factors and a definite increase in profit margins are achieved as a result.

"These figures also serve to emphasize the experience of all other forms of transportation wherein the transportation of cargo has always been the greatest producer of revenue. The transportation of air cargo is destined to assume the same role."

5 Reasons For Growth

Lockheed concludes that "the potential of fair freight traffic has hardly been exploited." It supports this statement with a forecast that air freight in seven years will be five times as great as today's volume.

It cites these reasons for this growth expectancy:

1. The very rapid growth of air freight as contrasted to the older forms of air cargo, such as express and mail.

2. The dominant ton-mile position in the cargo field which air freight has assumed over the older forms, despite the fact that it is only seven years old, compared to 15 years for express and nearly 30 years for mail.

3. The general downtrend of air freight rates and the upward trend of surface rates.

4. The dominant position assumed in the air freight field by the all freight carriers in the past two years, contrasted to the passenger carrier.

5. The continuing development within air freight of better methods of ground handling, training of personnel, new applications of the economic useage of air freight, and the creation of cargo-designed aircraft to replace the converted passenger version aircraft now being used.

New Products

(*Continued from* Page 19)

to fit the article it is to protect, can be molded with a covering of cloth or other material on either side, it can be bonded to any known surface, it is fungus proof and will not support combustion. Various grades in all colors are supplied and engineered specifically to the article to be protected.

Examples of its weight adaption characteristics are shown in the extreme cases of one Navy product presently being cushioned with Calresin CPC weighing only three ounces while another product weighs more than 60 pounds. Units considerably heavier can be cushioned with this material without causing excessive coldflow.

CONVEYOR MANUAL

"Conveyor Terms and Definitions," a manual on standard nomenclature for conveyor types and parts, has been published by the Conveyor Equipment Manufacturers Association, according to an announcement by R. C. Sollenberger, Executive Vice President.

The manual contains about 1500 listings and the line drawings of more than 80 types of conveyors and parts. For major items it includes terminology in French, German, Italian and Spanish as well as in English, and is a product of more than three years of work by the Association's Technical Committee which is composed of engineers from all branches of the conveyor industry.

"This glossary is designed to save time and money and avoid confusion for both users and manufacturers of conveying equipment," Mr. Sollenberger said.

"The need, growing over the years,

(*Continued on Page 26*)

Don't go down with your shipping problems...

Pack up with **Tekwood®!**

Is trouble with your shipping containers – excess weight, breakage, puncturing, high costs – getting you *down?*

Cheer up! Chances are that Tekwood will solve your problems!

Tekwood is a low-priced, tough, laminated panelboard material with a hardwood core. It lends itself to fast production... can be sawn ten pieces at a time and handled readily on automatic nailing, stapling and shearing machines. It won't buckle, shatter or splinter. Takes paint and stencils readily and meets military specifications.

For protection against weather, corrosion and fungus your best bet is Protekwood®. . . a 1/7" thick, three-ply panel of hardwood veneer, faced on both sides with asphalt saturated paperboard. As easy to handle as Tekwood.

And don't forget Weldwood® Hardboard for pallets and Binder Boards.

UNITED STATES PLYWOOD CORPORATION

World's Largest Plywood Organization

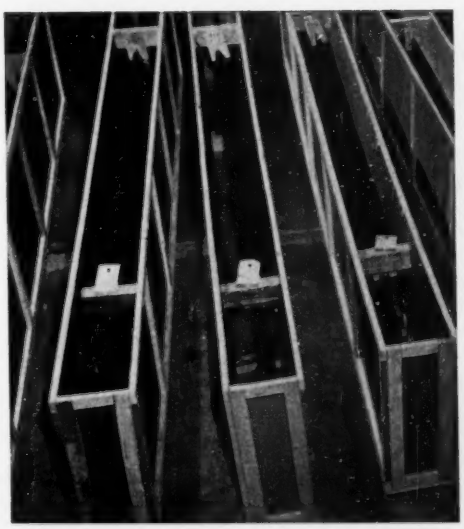
55 West 44th Street, New York 36, N. Y.

Manufacturers of Tekwood and Weldwood® Plywood

Tekwood is a patented product

U. S. Pat. No. 1997344.

Trade-mark registered



Tekwood containers like these are used by Republic Aviation Corporation for protecting and shipping aircraft parts. Investigate Tekwood today.

Costs Slashed By Strapping Specially-Stacked Box Shook

The Menominee Box and Lumber Company of Menominee, Mich., now loads freight-car shipments of box shook in 4 to 5 per cent of the time previously required. The creation of a method of forming and handling large unit-loads has dramatically reduced loading time to a small fraction to the 50 to 60 man-hours previously required to man-handle the 2500 small bundles of shook needed to fill each box car.

An average box car shipment of 30,000 board feet of lumber now contains only 75 bundles, stacked two high and two wide. This consolidation is possible because of the rigidity of the shook bundles when secured with three or more bands of ¾ x .020 in. steelstrapping. The lift trucks now used permit handling of unit-loads weighing in excess of 1000 lb. In addition, a fork-truck handling system, necessitated by the size and weight of strapped shook bundles, increases the usable storage space and stacking height.

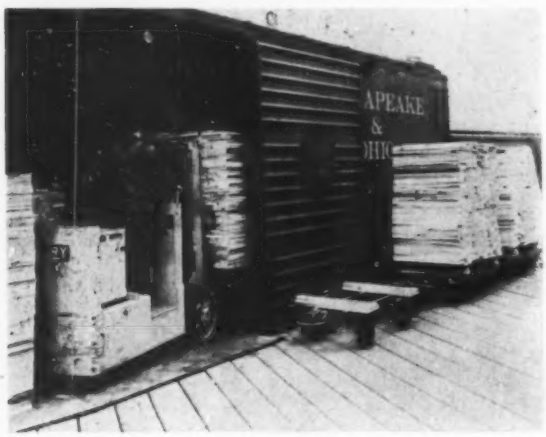


Photo & Data Courtesy: The Mercury Manufacturing Company.

Unit loads of dressed hardwood are removed from railroad cars by power fork trucks, and deposited by the trucks on caster-wheel trailers. When loaded, the three-car tractor-trailer train pulls the lumber 500 feet to the storage area.

Freight savings, storage space and stacking height can be further increased by eliminating the pallets ordinarily used when handling strapped bundles of shook, thus cutting dunnage to the bone and reducing

(*Continued on Page* 33)

Mobile Plant for Icing Perishable Freight

Recent developments for expediting and improving the icing of perishable railroad shipments include a mobile ice plant, on wheels, which is being tested by a southwestern railroad. Designed for servicing refrigerator cars, the new facility, said to be the first of its kind, is an ice-manufacturing unit mounted on a standard railroad flat car so that it can be hauled in trains for use at any desired point.

The mobile ice plant is completely automatic and requires only a tank car of water for supply. It can operate 24 hours a day, with one man for each 8-hour shift, and produce 25 tons of ice daily, or more than one ton per hour.

Ice comes from the new machine in 2-inch cylinders with hollow centers, of a length which can be varied from fine shavings up to 6 inches. For bunker icing and "top icing," cylinders 4 inches long are used. The freezing plant is operated from a 78 h.p. diesel engine. A second power source is a 19 kw. diesel-electric set to supply power for electric lights, conveyor motors and other motors.

Pallet Trucks Save Firm 25% In Loading Costs

A 25% saving in the man-hour cost of loading freight cars is reported by The Mengel Company, Inc., Louisville, Kentucky corrugated box manufacturers. Much of the credit is given to the firm's five electric pallet trucks.

This saving is the result of a number of factors. Foremost among them are the power and the maneuverability of the electric trucks which permits the movement of large loads of flat corrugated cartons under

(*Continued on Page* 33)

New Type of Retaining Door For Bulk Commodities

Retaining doors of heavy-duty kraft paper, reinforced with steel straps, are providing an effective and efficient solution of serious difficulties encountered in shipping many bulk commodities in box cars.

This door was developed by a Mississippi Valley railroad in its search for a better and cheaper method of loading and shipping alumina powder, in carload lots. Alumina is a fine snow-white powdered chemical. It moves in trainload lots, with more than 60 tons to a car. Preventing the elusive, fine-textured alumina from sifting out of cars during the long haul has been a challenge to the ingenuity of both the shippers and the railroads. Former practice has been to close side-door openings with wooden doors similar to grain doors. These, in turn, were cushioned with corrugated boards. These closures involved considerable expense, as the wooden doors were not available for re-use by the originating railroad.

The kraft doors are made of ¾" by 0.02" steel straps, hot-laminated into position between two sheets of water-repellent, heavy-duty kraft liner board. An asphaltum binder which does not absorb water is the laminating adhesive. The doors come in three sizes to cover a wide range of applications. They are light in weight and easy to handle, store and apply. The largest of the three sizes weighs only ten pounds. Therefore, savings in dunnage are substantial. Only hammer and nails are needed to apply the doors. The

(*Continued on Page* 33)

★ TRAFFIC REPORTER ★

Mr. Leo E. Golden, President and General Manager of the Eastern Motor Freight Conference. Hartford, Connecticut **was accorded an Honorary Membership in the Connecticut Alpha Chapter #56, Delta Nu Alpha Transportation Fraternity,** at a meeting in New Haven, Connecticut.

The honor, a rare one in the history of this professional fraternity, was tendered in recognition of Mr. Golden's extremely impressive background in transportation, and because of his active interest in the growth of Delta Nu Alpha in New England.

The presentation by Mr. Serge Neprash, Assistant Traffic Manager of the Armstrong Rubber Company, Chairman of the Presentation Committee. was made with the unanimous approval of Connecticut Alpha Chapter membership upon recommendation by its Board of Directors. Also signing the membership scroll for the membership were President John Coyle, New Haven Railroad Traffic Representative, 1st Vice President Leland Achorn, General Traffic Manager, Adley Express and 2nd Vice President Cliff Pierson, Assistant Traffic Manager. Bridgeport Brass Company.

* * *

Ike and His New Command Decisions was discussed by Leslie Nichols, Noted War Correspondent and Radio Commentator at the Annual Meeting of the Wisconsin Valley Traffic Club, in Stevens Point. Wisconsin.

* * *

A Golf Week-end at Las Vegas was the feature of the December activities of the Los Angeles Transportation Club, Inc.

* * *

John R. Wagner, Vice President and General Manager of the Pacific Far East Lines, Inc. was principal speaker at the December. 4th Annual Dinner Meeting of the Los Angeles Traffic Managers' Conference at the Rodger Young auditorium. Among officers elected for the year were: President, J. A. Sullivan, California Hardware Co.; First Vice President, L. J. Rowley. Lockheed Aircraft Corp.; Second Vice-President, A. R. Oberlin, Don Baxter, Inc.; and Secy-Treas., P. G. Rahe. Fluor Corp. Ltd.

The Los Angeles Traffic Managers' Conference is an organization made up of shipper traffic managers who observe legislation affecting transportation and take action when ordered by the membership. They look to promotion of sound transportation policies after due consideration and discussion.

* * *

Mr. Leo E. Golden, President, Eastern Motor Freight Conference, addressed the membership of the Metropolitan Traffic Association of New York, Inc. at a December meeting at the Hotel Commodore. Mr. W. G. Shanley, of the

Here Are the Answers To Your Shipping and Traffic Problems!

Traffic Managers

Shipping Executives

BETTER SHIPPING MANUAL

BETTER SHIPPING MANUAL contains information and data on hundreds of subjects that crop up daily. The articles on Military Packing are up-to-the-minute and invaluable to every industrial shipping department executive.

Subjects covered include the following:

- Military Packing
- Shipping Department Management
- Pallets and Unit Loads
- Materials Handling
- Containers
- Sealing Methods
- Traffic Management

And other important and authoratative articles.

Right now you are busier than ever, and BETTER SHIPPING MANUAL will give you scores of practical, usable ideas and methods that are worth a hundred times the cost. 122 file-size pages—compiled and written by men who know their jobs! The guide to equipment and supplies is of constant use.

This book selling for $3.00 is guaranteed satisfactory, or money refunded. Fill out the coupon today!

1-53

SHIPPING MANAGEMENT, INC.
425 Fourth Avenue, New York 16, N. Y.

Send me a copy of BETTER SHIPPING MANUAL. I enclose $3 ☐ or bill me. ☐

Name ..... Position .....

Company .....

Address .....

N. Y. District Office of Eastern Weighing and Inspection Bureau conducted the pre-meeting forum.

New Products

(*Continued from Page 23*)

for uniform terms and definitions for the many and varied types of conveyors was emphasized by the experiences of World War II. During that period, it became evident that the Armed Services (even between themselves), civilian agencies, and industry were using different vocabularies in discussing and specifying conveyors. Terms varied between the segments of the conveyor industry itself, between the conveyor manufacturer and his customers, and between users of conveyors in the same industries."

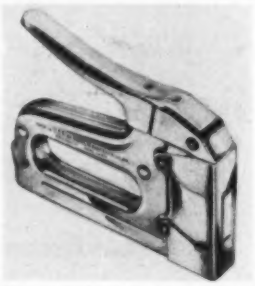
Mr. Sollenberger said that throughout the 64-page manual an attempt was made to define each type of conveyor by what it "is" rather than by what it "does." The terminology has been adopted by the members of the association and is the official standard for the industry.

The manual, according to Mr. Sollenberger, is available from the Conveyor Tquipment Manufacturers Association, but he said that conveyor users may obtain copies from members of the association with whom they customarily do their conveyor business.

In addition to the glossary of terms, the manual contains a brief account of the conveyor industry in the American system of mass production, as well as a membership list and a brief history of the Conveyor Equipment Manufacturers Association.

HEAVY STAPLE GUN TACKER

Arrow Fastener Company, Inc., manufacturers of the well-known T-32 automatic gun tacker, announce the new T-50 Gun Tacker that shoots heavier, longer, patented wedge-pointed high gauge carbon steel wire staples, up to 9-16" leg length.



Precision engineered in every detail, the high-powered spring action of the T-50 works on the principle of double leverage for smooth-action and tremendous power. It is specially designed to fit the contour of the hand for comfortable use; and the 1¼" movement at extreme point with total spread of 2 1-16" affords user faster, easier tacking.

The T-50 Gun Tacker has a patented non-clogging mechanism that prevents jamming or clogging of staples. This precision locked mechanism permits only one staple at a time to be ejected from the staple track. An easy-to-get-at mechanism permits easy dismantling of working parts to remove dirt, dust, or grit for smooth efficient operation.

It is used for attaching tags. labels, packing lists, bills of lading, etc., to wood containers; tacking protective linings and paddings inside boxes, cases, crates, barrels, box cars and freight cars; posting signs and notices on bulletin boards.

SIDE—DISCHARGING STACKER

Designed and manufactured for side discharge is this Lewis-Shepard Electric JackStacker truck. It will lift and stack any cylindrical object with a core hole. Capacity of the pictured model is 1100 lbs. It will operate in 38½" wide aisles and with the adjustable carriage boom can handle rolls of 53" to 88" in length.

The lowered height to the lifting hooks is 8". The lifting height is 8' 6". The celoron stabilizing casters give additional support. The side motion of the lifting arms is 31" on either side of the center line and is controlled from the handle head.

Literature and prices of products mentioned can be obtained if you drop a post card to News Editor, SHIPPING MANAGEMENT, 425 Fourth Ave., New York 16, N. Y.

Companies having new product stories should send them to the same address.

THE IDEAL (and no other Stencil Machine) HAS THE AUTOMATIC PAPER CARRIAGE

Shifts Like a Typewriter

•

The Minimum Margin Grip Saves 25% on Stencil Board

The improved features of the new IDEAL STENCIL MACHINE are engineered to make your marking operation easier . . . speedier . . . . . more accurate. Easy to follow pointer . . . reading-angle dial . . . visible cutting. Automatic line spacer . . . a quick flip of a lever provides rapid carriage returns. Cuts stencils for export markings with speed and perfect alignment. IDEAL is the COMPLETE STENCIL MACHINE.

IDEAL STENCIL MACHINE CO.
108 IOWA AVE., BELLEVILLE, ILL.

Write for your copy of the Ideal Shipping Guide

"RED" sez:

There is no better closure method than gummed tape. There is no better gummed tape than REDCORE.

Rexford PAPER COMPANY
MILWAUKEE 3, WIS.

Defense Packaging Program

(*Continued from Page* 12)

package design for air shipment has been set at approximately 15% tare weight. One can readily envisage the huge savings in transportation costs, the more efficient use of aircraft, together with the requirements for fewer aircraft for the transportation of supplies, if we should again be plunged into all out war.

This requirement for the delivery of military supplies by air is a very real one in the event the conflict should become world-wide. We might be called upon to deliver supplies either to the Arctic or to the jungles of the Far East on very short notice.

During World War II, even after the completion of the famous Burma Road, approximately twelve times the quantity of supplies were flown over the Hump each month, as was transported over the Burma Road.

I do not wish to leave the impression that all supplies will be flown to destination, however, I do feel certain that the proportion of supplies to be transported in aircraft would materially increase in an all out war, oper the proportion of World War II.

Since we are facing a future which promises to produce new concepts in transportation of military goods, we in the Packaging Division are sitting in with the Packaging Panel of the Research and Development Board. We are developing a close working relationship in the evolution of new packaging materials and new packaging techniques.

Recommending Training Methods

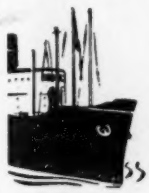
In addition to our daily concerns with packaging specifications and standards we have assumed, at the request of the Inspection Division of our Agency, the task of reviewing and recommending training methods for Inspection personnel in packaging so that they may be completely informed on basic packaging procedures. We believe that inspection personnel have a most important mission in relation to military packaging. It is significant that several of the regional Inspection offices have requested a short training course for their Inspection people.

Evidence of increasing awareness of the correlation of military packaging with the overall defense effort comes in every day. We have been in conference with representatives of those in charge of the National Stockpile. They have indicated that they will welcome assistance in packaging some of those items which have caused them difficulty and loss.

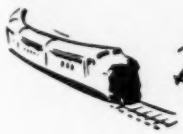
I might add that packaging for the stockpile presents a challenge which is new in this field. While the number of handlings that stockpile material receives is relatively insignificant, the length of time in storage presents problems which we have not previously encountered.

The field of military packaging is an ever shifting

TIE IT UP
with King Cotton TWINE



Best for PARCEL POST



Best for RAILWAY EXPRESS

Best for AIR EXPRESS

You can't beat first quality cotton twine when it comes to securely binding parcels . . . large or small for air, rail or messenger. And when it comes to cotton twine you can't beat King Cotton. King Cotton Twines have been popular with shippers for years . . . has your shipping department tested it lately?

King Cotton Wrapping Twines are available in all sizes, all put-ups and in white, plain colors or variegated. For hand tying or tying machines, there is a King Cotton Twine for Every Purpose.

Fit to be tied? use King Cotton TWINE!

King Cotton CORDAGE

JOHN H. GRAHAM & CO., INC.
107 DUANE STREET • NEW YORK 8, NEW YORK

"HOW CAN I SOLVE MY SHIPPING AND LABELING PROBLEM?"
"WITH *GLUE-FAST* LABEL GLUERS AND GLUES OF COURSE!"

SAVE TIME **35%**

ELIMINATE SLOW MESSY GLUE POTS and BRUSHES

- Low initial cost . . . no upkeep . . . trouble free
- Speeds up labeling . . . cheaper operation . . . cleaner labeling
- More uniform labeling makes neater appearing packages
- Used for applying glue to labels for cartons, bottles; cans

Hand operated models 6" - 7" and 12" size

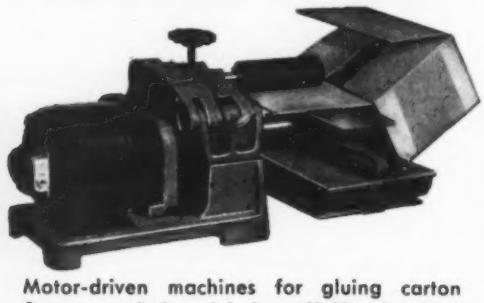
Order 6" Label Gluer 10-DAY FREE TRIAL

Write Today!

GLUE FAST EQUIPMENT CO., Inc.
Dept. 11S - 11 White St., New York 13, N. Y.

Built for dependable service

POTDEVIN CARTON GLUERS



Motor-driven machines for gluing carton flaps securely in quick time. Uniformly glued flaps insure safely sealed cartons. No glue-ooze at the edges. Glues one or both sides of large inner flaps or the underside of the printed seal flaps. Uses any carton sealing glue.

Send for complete information

POTDEVIN MACHINE CO.
North St., Teterboro, N. J.

ESTABLISHED IN 1893 POTDEVIN

Designers and manufacturers of equipment for Bag Making, Printing, Coating, Laminating, Gluing and Labeling

one. We must anticipate requirements before they become pressing . . . peoples lives depend on our ability to project our thinking into new sets of circumstances. You gentlemen here today provide the intelligence section of our program as well as the Operations Division. You are in a position to conjecture about the problems which may arise in handling of specific packaging problems. It is likely in this complex military structure we have today that your problems will be troubling someone in another service . . . if you call the problem to our attention promptly, we will do the best we can to develop solutions which will help out all across the board.

Truck-Trailer Handling

(*Continued from Page* 12)

at least nine hours to unload the freight car and to place the carload shipments of short lengths of pressed hardwood in storage. With the new method, one man now unloads sizes required separate patterns for each type of load. However, all bundle designs have one thing in common — voids created within the bundle to allow entry of the lift fork tines.

In most cases, the predetermined voids are created by using a natural stacking pattern. Where this is not possible, voids are formed by tubular dunnage or cross strips of shook. These same principles may be adapted with equal effectiveness to other commodities shipped in bundle form where a definite stacking pattern may be achieved.

Cuts & Data Courtesy: Acme Steel Company.

Light-weight Crates

(*Continued from Page* 13)

four sides of the crate and is easily and quickly folded into shape. "Mats" and crate ends are stacked ceiling-high in a minimum of floor space before use. Assembling is a matter of only a few man-minutes.

In packaging, refractories are laid in a crate to form a tight pattern so they can not shift. Any slack is eliminated by filling in empty spaces with scrap lumber or straw. A crate is closed quickly and securely by folding the lid shut, attaching it to the ends with a few nails, and engaging and twisting the ends of the binding wires of the "mat" to form a tight closure.

The compactness of the load, plus the high resilience and great built-in structural strength of the crate, protect the brittle refractories against damage from shipping shocks, jars, and rough handling. Even containers packed with upwards of 600 pounds of refractories are safely stacked several high in the

Stevens Fire Brick Co. warehouse before shipment, in freight cars, and in the holds of ships.

The fact that only one complaint of shipping damage due to container failure has been received by the company since its conversion to the use of wirebound crates is especially significant when it is realized that, besides shipping refractories of all kinds throughout this country, it exports them to Shanghai, Calcutta, Rio de Janeiro, Buenos Aires, Havana, Mexico City, Yokohama, Sydney, Cairo, Puerto Rico, Guatemala, Canada, and other distant points.

Theft Prevention Methods

(*Continued from Page* 13)

eliminated through the program directed at full-load prevention."

The Babaco system, which has been leased for use on many thousands of trucks, includes a warning that the system is not under the driver's control. The warning by itself, truckers said, acts as a deterrent against attempted pilferage. Insurance savings ranging from 1 to 5 per cent, it was asserted, can often defray the cost of an alarm system.

Pallets Today

(*Continued from Page* 15)

by this industry should point the way for a similar intelligent approach to the solution of materials handling problems in other industries.

Effects on Container Consumption

No definite conclusions were reached on whether the installation of pallets resulted in increased or decreased container consumption. It was unanimously agreed, however, that the overall change was negligible. Major changes were tailored to meet the requirements of a particular industry. For example, a traffic manager of a large electric corporation reported that the installation of pallet operations definitely accounted for reduced container consumption. For instance, hydraulic brakes were formerly packed one to a corrugated shipping container: now the containers are eliminated and wood separators are used to protect the product. He also pointed out that a single large egg case type container was now used to ship 60 motors. This present day package required 127 sq. ft. of fibre board compared to the 665 sq. ft. formerly used.

A materials control superintendent of a large motor car corporation pointed out that pallets had decreased the amount of material received loose and naturally more containers would be used this way.

A well known product developer for an expendable pallet company explained that his firm had made a spot check of this question through their customers. It was found that in 90 per cent of the cases no containers

GAIR

SHIPPING CONTAINERS

eliminate many hazards of shipping!

Gair Corrugated Containers are so scientifically constructed that they offer the utmost PROTECTION against the many hazards of shipping . . . truly amazing how they withstand tremendous knocking about and rough usage.

Without obligation Robert Gair offers a helping hand in solving shipping container problems.

WRITE TODAY for technical information.

*Reg. U.S. Pat. Off.

ROBERT GAIR COMPANY, INC.

155 EAST 44TH STREET, NEW YORK • TORONTO

PAPERBOARD • FOLDING CARTONS • SHIPPING CONTAINERS

Simonite
REGISTERED WITH U. S. PAT. OFF. 406340
LAMINATED FIBRE
STRAPPING
Important Shipping Development
SAMPLES AND DEMONSTRATION BY REQUEST
Distributors — prime territories available
Frank Hanline and Sons
1009-1011 W. DAUPHIN STREET
PHILADELPHIA 33, PA.
Dept. F. S.
Phones: STevenson 2-8276 — 2-8277

Check your methods against this manual of practical AIR TRANSPORT BUSINESS METHODS

NOW all the best practices that foster profitable and efficient operation of modern airlines are detailed in a single book, with a host of supporting facts and figures.

The most effective procedure in such areas as staff and organization—aircraft utilization—revenue and rates—cargo and passenger handling—and sales and promotion—are clearly described . . . . . you can look to this 725-page volume for practical help in scores of matters.

. . . for the background to fill out your administrative or functional knowledge of any phase of the industry.

. . . for the ideas, methods, and facts to improve operational procedure in many aspects, large and small.

AIR TRANSPORTATION TRAFFIC AND MANAGEMENT

By THOMAS WOLFE

President, Pacific Airmotive Corporation
Formerly Vice-President, Pacific-Alaska Division
Pan American World Airways

725 pages, 104 illus., 185 graphs and tables, $8.00

Check this sampling of chapter headings:

Airway System of the United States
Foreign, International Air Carriers
Government Regulation and Development
CAA and Safety Regulation
Airline Organization
Airline Revenue and Costs
Airline Finances
Traffic Organization and Management
Terminal Procedure and Problems
Traffics, Fares, Rates, and Charges
Sales
Passenger Service
Air Express and Air Freight
Advertising

Price $9.50

SHIPPING MANAGEMENT — Book Department
425 Fourth Ave., New York 16, N. Y.
Enclosed is ☐ Check, ☐ Money Order. Please send Book to

Name .....
Address .....
City ..... *Zone* ..... *State* .....
Position .....
Company .....

Check or money-order must accompany order.

were used at all prior to the adoption of expendable pallets. Containers were found to be more easily glued or strapped than the unpackaged commodity for effective palletizing. In the case of castings he reported that they were formerly shipped loose with damage claims running around 10 per cent. This far exceeded the cost of packaging used today. Similar examples of increased use of packaging was found in shipping automobile wheels, transmissions, paper bats, shock absorbers, springs, etc.

In conclusion, the Department of Commerce survey reveals that while the use of pallets is expanding rapidly, the removal of many obstacles is necessary for a continued growth pattern. Containers and packaging materials manufacturers can play a significant role in this growth by the recognition and resolute cooperation in the elimination of these problems. Such participation not only builds "goodwill" for the container and packaging field throughout the country but also important gains are realized by individual manufacturers through an improved system of industrial palletization.

Conveyor Frees Elevator

(*Continued from Page* 18)

going packages are placed on the conveyor in the basement and are carried up to the shipping platform.

A trap door has been suspended above the conveyor-opening to form a fire door. A fuse in the door's suspension chain is melted by abnormally high temperatures to drop the door and control drafts.

Listen, Mr. Traffic Manager

(*Continued from Page* 20)

be advisable for him to make an analysis of the methods used in his own concern, and in all probability call in an outside consultant for this task. From this he can determine whether his costs were in line or not. In any event, Management very often fails to accept or realize that these costs vary according to the product. In many instances they do not consider these costs as part of the product. At the end of the month a Traffic Department should show Management a cost allocation sheet which can be used for assessing the various charges to the proper department or product. In this way, as in transportation costs, the real or true cost can be shown.

★ ★ ★

MANY TIMES IN PREVIOUS COLUMNS we have mentioned the advisability of thoroughly understanding and checking f.o.b. terms on all contracts or purchase orders. One further point might be added to these facts. Not only should a company list the f.o.b. terms as "f.o.b. city" but they should list the terms on their purchase orders as "f.o.b. plant". The reason for this

in the case of many large shippers is to compel the purchaser to have pick-ups made at the supplier's door. For example, if terms of sale are f.o.b. Cambridge and a dealer requests a routing by a carrier located in Cambridge, but 15 miles from the supplier's plant, the supplier is obliged to deliver material himself, at his own cost, to that carrier. If terms of sale were f.o.b. plant, then the shipper could charge any additional expense (for delivery to the specified carrier) to the dealer.

Another instance may be where a shipper has two or more shipping points for his material. It is obvious here that terms should be f.o.b. plant, thus covering him regardless of where shipment originates.

Recently we saw an advertising pamphlet put out by a local concern who ship material both from Lynn, Mass., and Omaha, Nebraska, depending on the material ordered. However, this concern made the mistake of stating that all material would be shipped f.o.b. Lynn. A dealer who had a good traffic set-up, and who ordered from Lynn material to be shipped from Omaha, could conceivably claim for any charges incurred on that particular shipment. Had the terms "f.o.b. plant" been inserted on the advertising pamphlet this entire situation could have been avoided.

Post-War Plant Improvement Scheme Cuts RR Loss & Damage

How the railroads' billion-dollar-a-year postwar program of improving plant is pointing toward future reduction in loss and damage to freight shipments was described by James H. Aydelott, of Washington, D. C., vice president in charge of the Operations and Maintenance Department of the Association of American Railroads.

Addressing the annual meeting of the A. A. R. Freight Claim Division at the Hotel Statler here, Mr. Aydelott said that better performance in damage prevention on many railroads has directly accompanied the higher levels of operating efficiency brought about by constant improvement of physical facilities.

Foremost among the contributions of a better plant toward safe shipping, Mr. Aydelott pointed out, is the improved railroad freight car which has better riding qualities and which can more readily absorb ordinary shocks before they reach cargo. Almost 450,000 new cars have been added to railroad rolling stocks in the postwar years, he added.

Mr. Aydelott also said that "engineers are busy with the revision of yards where an outmoded layout has contributed in the past to rough couplings. A large amount of curvature is annually being reduced on primary main lines, and improved signaling which will reduce train stops is being installed. The substitution of diesel power for outmoded steam power continues.

"With these new locomotives and modern steam locomotives, longer engine runs are possible. In keeping with that change, a great many intermediate yards

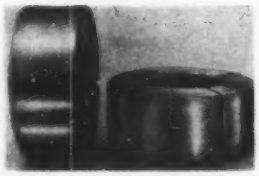
JUST PRESS THE KEY and you know the postage!
DETECTO
POST-O-METER
• Saves Postage—
The package weighed on this Parcel Post Scale will not carry too many—or too few—stamps.
• Saves Time—
Speeds mailing department flow. Ends weighing bottlenecks. Simply press the zone key. One figure shows the exact postage. No postage-due delays... ever!
DETECTO
DETECTO SCALES INC.
540 PARK AVE • BROOKLYN 5 NEW YORK

TAG SHIPMENTS FASTER
HANSEN TACKER MODEL T-4
WITH
HANSEN
ONE-HAND TACKER
LINING SHIPPING CRATES
TAGGING and LABELING BOXES
Here is the modern, efficient way to attach tags or linings to shipping crates, to stitch cardboard cartons, to close heavy sacks, and to do hundreds of other fastening jobs.
The Hansen Tacker drives home double-pointed tacks, even in hardest wood. Compound leverage and powerful spring do the work for you. Operate the tacker with one hand, driving tacks as rapidly as you can grip. Holds scores of tacks, and reloads almost instantly. Choose from many models.
WRITE FOR BOOKLET
A. L. HANSEN MFG CO

SHREDDED PAPER
is the ideal Packing Material

Produce it yourself for . . .
(1) Real dollar and cents savings
(2) Minimum inventories
(3) Substantial space savings
(4) Dependable supply.
Test a "Silver" paper shredder in your own shop without obligation — Get complete details by writing today to:
INDUSTRIAL SHREDDER & CUTTER CO.
707 S. ELSWORTH AVE. SALEM, OHIO

THE BEST STITCHING WIRE
At The Lowest Prices
ALL SIZES - QUICK SHIPMENTS



DEPENDABLE SERVICE
For Low Price Quotation
Call or Write today
GENERAL STAPLE CORP.
3 Waverly Place, New York 3, N. Y. GRamercy 3-5372

TANKS
BY COOPER
— ★ —
Everything for PACKAGING
— ★ —
U/L Approved Wax & Plastic Dip Tanks—Automatic Dip Tanks for Fingerprint Neutralizer, Metal Cleaning, Rust Proofing—Humidity Indicator Cards—Silica Gel—Strip Coating—Dipping Wax
JOBBERS AND DISTRIBUTORS WANTED
D. C. COOPER Company
1467 S. MICHIGAN AVE. HA. 7-8046 CHICAGO 5, ILL.

are being bypassed, thereby eliminating a large amount of switching."

Freight damage traceable to unsuitable equipment, Mr. Aydelott said, will come under better control as freight car supply is built up to a point where still greater selectivity can be had in placing cars for loading, particularly with those shippers whose commodities are most susceptible to damage.

High Stacking Requires Special Safety Precautions

Butch's arms wobbled His knees shook. He was standing on tiptoe trying to push a heavy box on top of a high pile. The foreman walked up to Butch.

"Lifting to the height of your shoulders is one thing —lifting up over your head is another," he remarked.

Trying to lift a box that is high over your head can result in serious injury. The position was not made to assure the maximum use of good balance and strength in handling heavy packages.

Butch looked around. "What'll I do, Boss, make lower stacks—call for the lift truck?"

"Keep this stack below 7 feet. After this, let's talk over the system before you start stacking any higher."
—U. S. Bureau of Labor Standards.

Steam locomotives are classified by their wheel arrangement, a 2-4-2 locomotive, for instance, indicating the number of small wheels on the front axle or truck, the second number indicating the number of driving wheels and the third number indicating the number of small trailing wheels which support the rear of the locomotive.

Pallet Trucks Saves Firm 25%

(*Continued from Page* 24)

all kinds of space limitations. During normal operations the power truck will easily lift a 4,000 pound pallet load, quickly and safely transport it into a truck or freight car and spot it in the desired position in a minimum of time.

Hand power truck easily lifts a heavy pallet load and quickly transports it into the interior of the freight car, where its smallness and flexibility makes it possible to spot the load at any desired position.

Congestion on both Shipping and Receiving Docks has been eliminated by the use of the pallet trucks. As a result, material flow within the plant has also improved.

Photo & Data Courtesy of Towmotor Corp.

Costs Slashed By Strapping

(*Continued from Page* 24)

space requirements. The Menominee Box and Lumber Company, after considerable experimentation, designed stacking patterns for just this purpose. The variety of shook the car and places the unit loads in storage in eight hours. This is a direct labor saving of 46 man-hours. A similar saving is obtained by moving the boards from storage to production areas. Thus, the total saving is 92 man-hours.

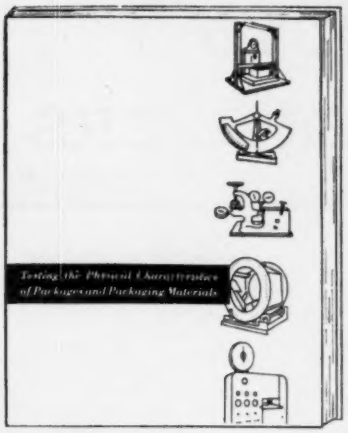
New Type Retaining Door

(*Continued from Page* 34)

steel straps are pre-punched to facilitate nailing. The use of double-headed nails permits easy removal with minimum damage to car door posts.

Experimental loading and results in regular service have demonstrated to the satisfaction of the shipper and the railroad that the new-type doors are a forward step in handling alumina, with considerable saving. Such doors have subsequently been used by other railroads on more than 250,000 carloads of bulk commodities such as soda ash, cement, phosphate, lime and materials of such characteristics. A similar door for grain reportedly is proving satisfactory.

Package Testing Means



Substantial Savings

Reduced Damage

Perhaps you can do a more effective packaging job less expensively. Perhaps you need a basic change in your container to save loss and damage.

Even companies with their own packaging departments can use the fresh viewpoint and broad experience of a competent outside professional organization to effect substantial savings. This is our business. We do not sell packagng materials of any kind; we do save many companies money and headaches. This booklet tells you something about our service.

Write for "Testing the Physical Characteristics of Packages & Packing Materials"

CONTAINER LABORATORIES, INC.
45 East 22nd Street New York 11, N. Y.

METZGAR "LIVE ROLLER" Power Unit

FOR HORIZONTAL POWER APPLICATION IN CONVEYOR AND PRODUCTION LINES

Metzgar "Live-Roller" Power Units offer a wear-resisting metal transmission surface that outlasts belt type units many times over for handling hot or sharp edged articles.

They are offered in various lengths and are readily adjustable for height.

Rollers may be specified for any spacing (1 to to 5 rollers per foot) either above or below the channel frame.

For economy in power units, your best buy is a Metzgar.

WIDTHS
11½", 15", 18", 24"
•
BALL-BEARING THROUGHOUT
•
MORE DURABLE THAN BELT TYPE
•
PERMANENT OR PORTABLE BASE

PHONES:
STEVENSON 2-8276
or
STEVENSON 2-8277

FRANK HANLINE & SONS
REPRESENTATIVES
1009-1011 Dauphin St.
PHILADELPHIA PENNSYLVANIA

INDEX TO ADVERTISERS

Air Transportation 30
American Excelsior Corp. 7
Atlantic Gummed Paper Co. 8
Better PPackages, Inc. ..... Back Cover
Better Shipping Manual 25
Container Laboratories, Inc. 33
D. C. Cooper Co. 32
Derby Sealers, Inc. 2
Detecto Scales, Inc. 3
Gair Company, Inc., Robert 29
General Staple Corp. 32
Gerrard Steel Strapping Division,
United States Steel Co. 5
Glue Fast Equipment Co., Inc. 28
Grabam & Co., Inc., John H. 27
Gummed Products Co., The 22
Hanline & Sons, Frank 30, 33
Hansen Mfg. Co., A. L. 31
Hudson Pulp & Paper Corp. 3
Ideal Stencil Machine Co. 26
Industrial Shredder & Cutter Co. 32
Leonard & Co., G. R. 4
Marsh Stencil Machine Co. 10
Pitney-Bowes, Inc. 35
Potdevin Machine Co. 28
Rexford Paper Co. 26
U. S. Plywood Corp. 23

CLASSIFIED ADVERTISING

Under this heading classified advertisements are accepted at the uniform rate of 25 cents a word, but no advertisement taken for less than 20 words with a minimum charge of $5.00. Address all communications to Classified Department, SHIPPING MANAGEMENT, 425 Fourth Avenue, New York 16, N. Y.

MISCELLANEOUS

DEALERS and SALES REPRESENTATIVES WANTED for ELECTRIC TAPE DISPENSER—quality GUMMED PRODUCTS (backed by consumer advertising campaign) — for BROOKLYN, QUEENS, LONG ISLAND, CONNECTICUT. Correspondence invited — Box 447, SHIPPING MANAGEMENT, 425 4th Ave., New York 16, N. Y.

SITUATIONS WANTED

EXPERIENCED TRAFFIC MANAGER, now with one of country's large manufacturers, wants to improve his position. Knows every phase of traffic from shipping and receiving platform to sales and top management. Can organize and supervise a traffic department and reduce your overhead and distribution costs. Can relocate, if necessary. Write Box 446, SHIPPING MANAGEMENT, 425 4th Ave., New York 16, N. Y.

AVAILABLE TRAFFIC EXECUTIVE

18 years Traffic Experience

Wide acquaintance at top levels in transportation.

Hired — Trained — Supervised many traffic and shipping personnel.

Age 36 — Married

Good appearance and personality, together with all around business know how.

Desire challenging opportunity to demonstrate traffic background.

Write Box 449

SHIPPING MANAGEMENT, 425 Fourth Ave., N.Y. 16, N.Y.

IF YOU WANT TO KEEP UP WITH THE BEST AND LATEST IDEAS AND PRACTICE READ

SHIPPING MANAGEMENT

12 monthly issues filled with helpful, usable infomation for

$3.00 per year

FREE 1951 BETTER SHIPPING MANUAL with this subscription to Shipping Management.

Send the coupon now.

12-52

SHIPPING MANAGEMENT, INC.
425 Fourth Avenue, New York 16, N. Y.

Enter my name as a subscriber and send me a free copy of BETTER SHIPPING MANUAL. Please bill me.

Name ..... Postion .....

Company .....

Address .....

"Wish the boss had my job...

...a smart hombre like him would soon find a way to stop this gummy mess."

Right you are, Bud, so why don't you put it up to him?

A time-saving, postage-saving, work-saving postage meter is the one way to put an end to this shipping room menace, once and for all.

Look, it's this way: a meter *prints* postage in any amount in a single stamp, with its own mailing date... *prints* it on special postage tape, moistened or dry—as and when needed.

A postage meter can be set for as much postage as you want to buy at one time. It keeps track of the postage used, shows how much is left—in dollars and cents.

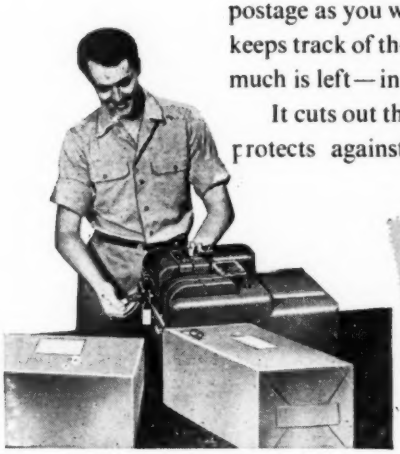
It cuts out the licking and the sticking, protects against loss, damage, theft or waste. It saves from 10 to 50% of the work and time consumed in parcel mailing. It levels off that late afternoon work peak.

Is this bad?

What we're hinting at, delicately, is that a postage meter would look good in your shipping room and take a load of trouble off your hands.

There's a model—hand or electric—for every business, large or small. Ask the nearest PB office for a demonstration, or send coupon for free illustrated booklet.

FREE: *Handy wall chart of New Postal Rates for all classes of mail, complete with changes, and parcel post map showing zones for any locality.*



PITNEY-BOWES

Postage Meter

World's leading makers of mailing machines... offices in 93 cities in the U.S. and Canada.

PITNEY-BOWES, Inc.
2255 Pacific Street, Stamford, Conn.
Send the Picture Book for Parcel Post Shippers.

Name_____

Firm_____

Address_____

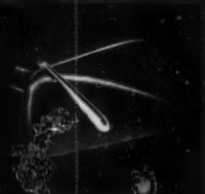
Choose the right machine for every sealing job from

America's complete sealer line

Counterboy 120
heavy-duty, all-purpose sealer

Tapeshooter 100
for shipping room, factory

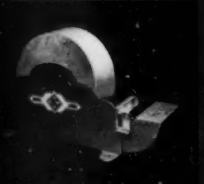
Counterboy 500-C



Better Pack 50
for retail stores, pre-packs

Counterboy Factory Model
for narrow tape, Tape-Strap

Counterboy Model B Loop



Packer 3-S
takes 3" width, 1 or 2 rolls

Big Inch No. 4
slits 1" pressure sensitive tape

Big Inch No. 40 for pressure sensitive industrial tape

Little Inch No. 3 [illegible]

Counterboy Labeler 102-S
with adjustable moistening

Counterboy CodeTaper
identifies as it seals

Write *today* for new specification folder covering light and heavy-duty sealing machines, tacky tape dispensers, gummed tape printers, hand and envelope moisteners, attachments and accessories—for shipping room, factory, store and office.

Better Packages, INC.

World's Leading Manufacturers of Gummed and Pressure-Sensitive Tape Dispensers

PLANT NO. 2 · 252 CANAL STREET · SHELTON, CONN.